

October, 1991

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BOARDWATCH

GUIDE TO THE WORLD OF ONLINE SERVICES

MAGAZINE

BBS AND THE HANDICAPPED

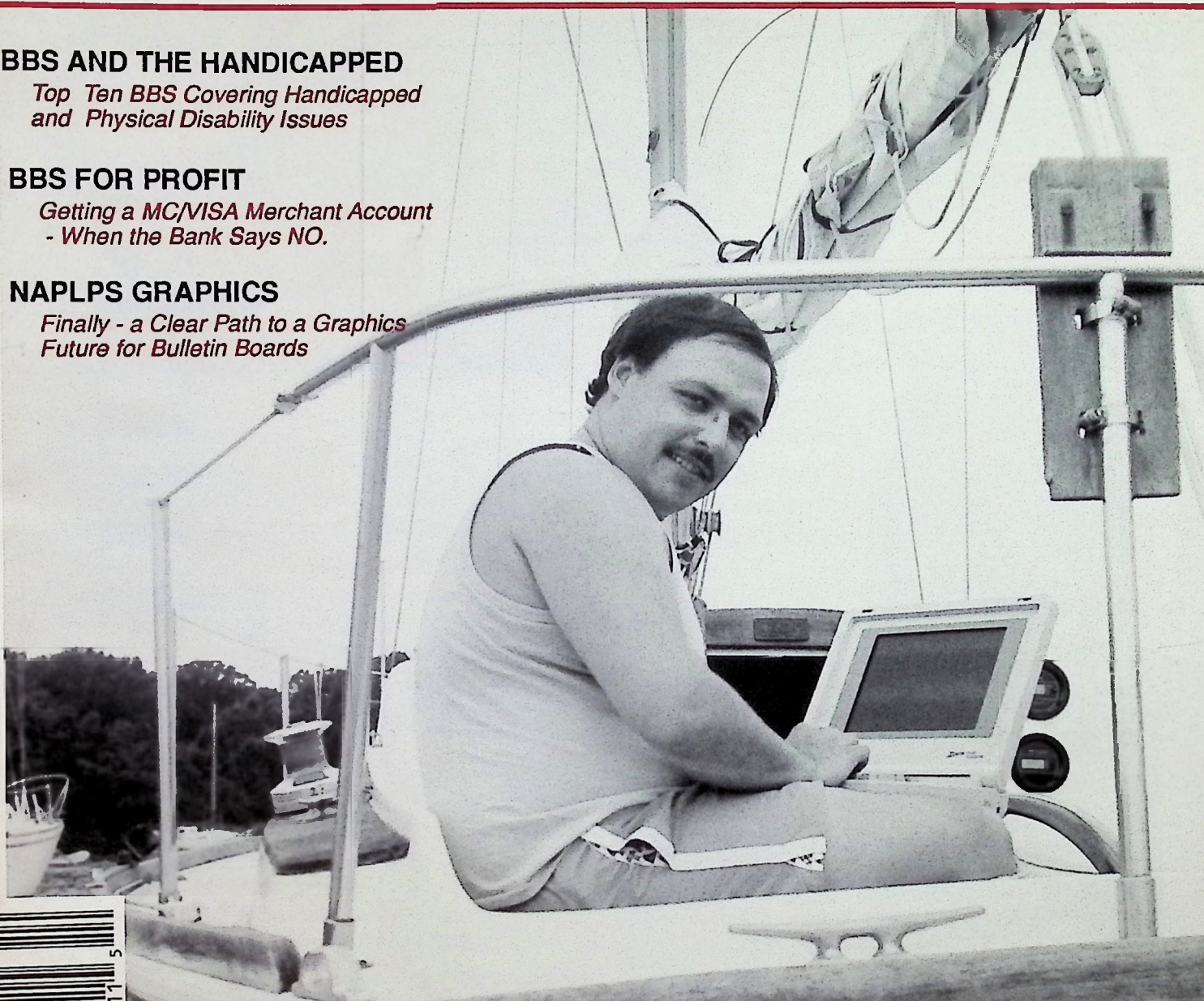
*Top Ten BBS Covering Handicapped
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*Getting a MC/VISA Merchant Account
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NAPLPS GRAPHICS

*Finally - a Clear Path to a Graphics
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*Sailing Into Specialized BBSs
The SAILING IC BBS - Kent Island Maryland*

REPORT ON FIDOCON91

408 BBS Operators Meet in Denver

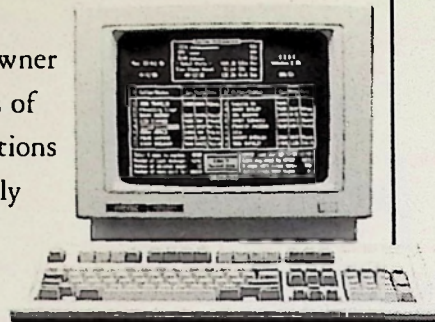


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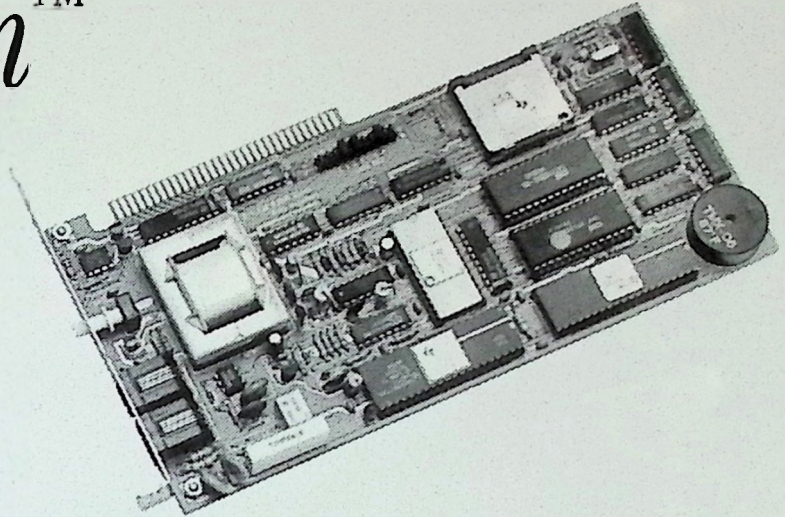
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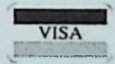
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EDITOR'S NOTES

BBS AS AN INDUSTRY - IT'S TIME

I started Boardwatch a little over 4 1/2 years ago. Opus CBBS was just displacing Fido BBS as the software of choice. The handful of BBSs that did request "donations" from callers were generally met with e-mail obscenities. And bulletin boards were not even widely considered a viable hobby - just strange people who let other people use their computers by telephone in the evenings. To many, this was viewed much the same as they would view a club of people who meet periodically to swap toothbrushes - strange, and probably not healthy.

I had a reasonably comfortable and embarrassingly overpaid position as a technical writer for a defense contractor - struggling to cram four hours of work into a single 40-hour work week. Actually, this was my third major corporation technical writing position in 10 years and each seemed almost identically mindless. Still, I was conscientious and on those days when I did arrive a bit late to work in the morning, I always tried to leave early in the afternoon to make up for it. It was the land of the brain dead.

The online world was still a bit rough - but captivating enough. The videotext end of the "industry" was a wasteland of failed experiments. Commercial online services such as CompuServe, GEnie, and The Source were as good as it got and whenever I was online bouncing somewhat frantically, if slowly, from menu to menu while the billing clock whirled away relentlessly, I always had the distinctly uncomfortable feeling that my pants had somehow fallen down around my ankles. I timed one movement from one CompuServe menu to another at 26 seconds - which they billed me for quite promptly as I recall - and pulled the plug.

Since then I've been privileged to observe newspapers, telephone companies, and hundreds of would be "information providers" flush millions of dollars down the RJ-11 jack without even a good show of thanks from the world at large.

Meanwhile, back at the ranch, the grandiose assortment of social maladjusts, tinkerers, HAM radio operators, and pizza aficionados kept on dialing - trading shareware software, beating up on their favorite shareware BBS authors for more features, and developing a following among local callers who paid nothing and dialed locally. And there was something magic in it. There was no money and no promotion. It required hundreds of hours of effort and the systems in those days normally "crashed" if the operator left the room. But still the callers came. And still more BBSs came online. In late 1987, it finally dawned on me what it was. A baby.

With a couple of toddlers of my own at the time, I knew what babies were. They are VERY much alive but they can't do much but make noise and crap all over the place. They take up a good bit of time and attention and they really aren't very useful in their native form. But they have a lot of potential. Just one of them can change the world in the interval between arriving in it and leaving it - and there are an awful lot of them.

Videotext looked to me a lot like alchemy - the age old quest to turn lead into gold. "We'll take money, mix it with technology, and it will turn into more money." That seemed to be the plan and I could detect no vision behind it for the future more complex than that. If it had WORKED I wouldn't have cared, it would still be uninteresting. But of course it didn't.

Bulletin boards were different. They grew in all sorts of directions without any money at all. Many things were tried and most failed. But the innovation continued. The guys who were trying to write the software became heroes. Little hope of ever making any money - some actually didn't want to. And the others had nothing to encourage them. But new programs ap-

peared weekly and existing programs were in a constant state of update. One title would sweep the nation and then another. And with each an army of operators would follow with utilities, techniques, and surprising new things to put online. Many were rude, loud, and stupid. Others even then showed a captivating charm. BBSs were an infant industry.

And just like a baby, you can't tell by looking down into the crib what it'll do when it grows up, but it will grow up to do something.

The corporate world, on the other hand, reeked of age. The walls of this social and economic paradigm were crumbling with decay and I seemed surrounded by fumbling men who had never been anywhere or done anything notable besides snuffle up to the public trough and spout endless advice about "the way things were" and "how the world worked." Finally, I handed them my badge (they all thought we were Marshals of some sort) and took a real long lunch.

I've been playing with the "baby" ever since. Of course, I was hardly alone. A number of other individuals had put down a token on "the BBS industry" as well and generally the ongoing question - usually uttered with some frustration and no small level of impatience was "When will it walk? Is it an industry yet?"

And no matter how hard they wished it would be, and no matter how hard they worked to "make it so", the answer remained the same. "No - it's a baby." About half the people involved with bulletin boards thought it never would grow up and the other half thought it already should have, but just like a baby, it worked on its own clock.

The good news is - the kid gained his feet in the late spring and early summer of 1991. The lurch out of infancy has begun. We can measure this in a number of ways, BBS software sales, BBS calling activity, pay BBS cash flow, modem unit sales, new callers, print media coverage, but it all comes up the same. The traditional summer activity lull didn't happen this year. Everything increased through April,

May, June, July, and August. Since activity normally increases dramatically each fall season in September - December, I really don't know what the numbers mean anymore except they are headed explosively up.

Perhaps nothing so pointedly shows the sea change in the online world as the FidoCon91. And a little behind the scenes view is probably in order here.

Peter Young, of the Interface Group, the people who put on the fall COMDEX computer show in Las Vegas each fall, called in April. He proposed we help sponsor a BBS Pavilion at COMDEX this year with BBS software vendors, modem manufacturers, and BBS operators all showing under one tent so to speak. A kind of "theme" section titled Boardwatch BBS Pavilion. I agreed the concept had some merit and it was time for the BBS industry to have a coming out party. Peter handed me over to John Grecko to work out the details.

I expressed my concerns regarding location to Grecko. What he proposed was a new "Networking Site" at the fabulous new Mirage Hotel. This was a little dicey as there hadn't been any COMDEX activity at the Mirage previously. But the concept of a site dedicated to LANs, modems, connectivity, and of course BBSs, had an obvious allure. We agreed to back it. There were two provisos he noted. They had to land Novell as an "anchor" for the site and we had to come up with eight to ten vendors for the Pavilion.

We contacted a number of BBS players and were a little amazed to find that despite the considerable expense of displaying at COMDEX, they were almost all quite ready to be part of a BBS Pavilion under the conditions we quite forthrightly described. I handed Grecko 14 virtually "done deals" and thought we were off and running.

What followed was one of the slimiest double crosses I've had the privilege of seeing done in daylight. Grecko called to tell me he had some "great" news. They had

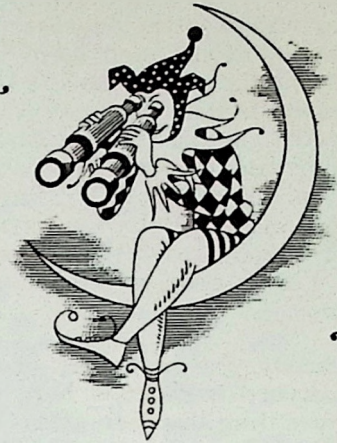
landed Novell ok as anchor for the networking site and they were moving the BBS Pavilion to the Riviera hotel - (the ghost city of COMDEX).

When I pointed out to Grecko that we had already told 14 vendors they were going to be in the Mirage at the networking site, he just laughed and told me they didn't have anything in writing and not to worry about it. The Interface Group would give me FREE display space, top billing, and some action on one of the session programs to "go along with the program" (you can't possibly turn THAT down Jack) and if I went, they would all go along so he wasn't worried.

I guess this is the point where Boardwatch will always be a little magazine instead of a big one. I never do quite get it right. I told him that while I didn't really mind him being a lying sack of s**t I didn't particularly care for him trying to make me out to be one. Despite some impressive backpedalling on his part, we pulled out of the pavilion concept in a pretty quick way anyway. I called the 14 vendors and told them we were out of the program and they would have to make their own individual arrangements with Interface Group for COMDEX. I understand two or three of them went ahead and took space. Grecko decided I was a lunatic for walking away from it. I decided he didn't exist. All in all a pretty clean finish for a rather messy affair. (Note for all you aspiring millionaires - this is NOT the way to do it.)

But as things are wont to do, they again turned out for the best. COMDEX is arguably the biggest computer show in the U.S. But it has gotten so big, and so expensive, that a lot of vendors are questioning the wisdom of going. Rumor has it that Novell, the anchor for the networking site, may not show at all. They consider the NetWorld show much more effective and are apparently having trouble figuring out how to break down their display at that show and get it to COMDEX in time to display.

J
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R



GRECKO

An isolated instance? Maybe. But increasingly, the very size of COMDEX is making it difficult to deal with. If you agree to meet someone somewhere to discuss anything business related, it becomes almost impossible to make happen. With 120,000 people there, you can't get a cab, you can't get anywhere. And it's really NOT all in one place - more like nine places each a mile or two apart. The vendors are getting nickled and dimed to death such that it realistically costs \$35,000 to put a small booth on the floor and they're not recovering half that amount in resulting followups. Largely because of the sprawl, the 120,000 results in actual traffic of maybe 10,000 in most locations and handing out two thousand pieces of literature is a good week for most. The net result is that many vendors are generating MORE leads and more productive results at smaller, more focused specialty trade shows - like NetWorld.

Which brings us back to FidoCon91. FidoCons had dwindled to meetings of 75-100 network gurus. They were tough on vendors. And if you went to one and weren't one of the "inside clique" attending the many private not-so-secret secret meetings, you were usually left standing by the swimming pool talking to the six or eight other outsiders who had mistakenly come thinking it would be a good thing to attend.

About two weeks after telling COMDEX to go pound sand, I was approached by Terry Travis, a member of the FidoCon committee who was a little depressed. His band of merry men were tasked with holding the FidoCon here in Denver but he was having some trouble getting the word out and generating interest. He wanted to make it a big show, but had actually gotten grief from people in FidoCon for "advertising" the show in Fido's own echomail conferences.

Frankly, I've had more people at backyard barbecues here at the house than I've seen at most FidoCons. But this guy REALLY wanted to pull this off well. And it was a little infectious. What if we COULD get a couple of hundred BBSers together in one place. It WOULD be fun.

Phil Becker of eSoft, Inc. is based across the valley in Aurora. He had attended every FidoCon for years. He agreed it would be a "good thing" to have a bigger one. We got together to talk over the concept of a show a little broader than FidoNet. Travis nearly fainted with relief when we decided 150 was doable. The more we talked, the more the number moved to 200-225. I finally admitted I would get all hot and wet if 300 showed up.

We contacted a few vendors. The response was almost shocking. There was some reticence about the FidoNet connection, but when we outlined our plans for a slightly wider show, the answer was not only YES, but more along the lines of "What took so long? Why hasn't someone done this before? It's time." We made up a wish list of vendors who had never been to a FidoCon - thinking we might talk a couple of them into trying it. They ALL wanted to come - PCB-board, Wildcat, Searchlight, Major BBS. Then, out of the blue PRODIGY wanted to come. Suddenly the banquet, with seating for 150, was sold out. Then the vendor area sold out. The Sheraton Hotel sold out. The Double Tree hotel across the street sold out and the Roadway Inn down the street was filling fast. All at once, the thing was running away from us.

On August 16th, over 400 BBSers showed up in Denver for the biggest BBS bash that has ever been. Representatives from CompuServe, BIX, Prodigy, and ZiffNet showed up. Dozens of people came from overseas. Phil Becker and I had agreed to do a couple of sessions on how to make your BBS make money and were stunned to look up and see most of the 400 attendees trying to cram into a tiny meeting room at the end of the hall where the session was scheduled. The consensus by Sunday's close was that it was the greatest thing to have happened to the BBS world ever. Most of the vendors were demanding to know who to sign up with for the best floor spot at next year's event. The baby was on its feet and crying somewhat demandingly to be fed.

By way of epilogue, we've formed a corporation to plan, organize, and promote another BBS show in Denver next year. The company is titled Online Network Expositions, Inc. (ONE, Inc.) We're calling the show The Online Networking Exposition and BBS Conference (The ONE BBSCON) and it will NOT be affiliated with FidoNet or held under the auspices of the FidoCon. By taking a bit wider view yet to serving the BBS industry as a whole and more actively promoting it, we fully intend to put 1200-1500 BBSers in one spot to meet the movers and shakers in this infant industry and talk about their favorite sport. And rather than fork over megabucks to wade through the mess in Las Vegas, the BBS industry now has a specialty trade show of its own. Until we get ONE, Inc. up and running, you can contact us either at eSoft - (303)699-6565 or here at Boardwatch (303)973-6038 voice - (303)973-4222 data. See you there.

Oh, and a final thanks to John Grecko of the Interface Group. You did NOT miss the birth of the most exciting new segment of the personal computer industry - you gave it away.

Jack Rickard
Editor/Publisher
Boardwatch Magazine.

LETTERS

Address correspondence to Letters to the Editor, Boardwatch Magazine, 5970 South Vivian Street, Littleton, CO 80127.

Dear Jack:

What a great magazine you have. Not only is it useful, but it's filled with great dirt. I actually read it cover to cover. Just one small correction though.

The U.S. did not break the German ENIGMA code. Alan M. Turing did, during WW2, in the British Secret Service. He did it using a paper-tape calculator he designed and built called the Bombe. He did a lot of very basic crypto work. He was a pioneer hacker; a mathematician who taught himself electronics in order to build the world's first all-electronic computers (predating American computers by years.) He was the person who came up with an obscure concept called "stored program", whereby a machine can modify its own instructions, while working on a seminal problem in mathematics. His British Secret Service work was classified until the 70's. He did other pioneering work in mathematics and biology.

He was also gay, and quite "out" in the British Secret Service, in the 40's no less. I read about him first in A HISTORY OF COMPUTING IN THE 20TH CENTURY (1980, Academic Press). There's an excellent, highly technical, biography of Turing called ALAN TURING: THE ENIGMA by Andrew Hodges (1983, Simon & Schuster). I recommend both books to anyone interested in the history of what we're collectively doing here.

Imagine where we would be if he had been censured because of his sexuality. Simply put, we'd have no computers, but only overgrown possibly-programmable calculators, which is where most of the world was heading at that time.

(From another gay programmer),
Tom Jennings/Fido Software/World Power Systems, Box 77731, San Francisco, CA 94107.

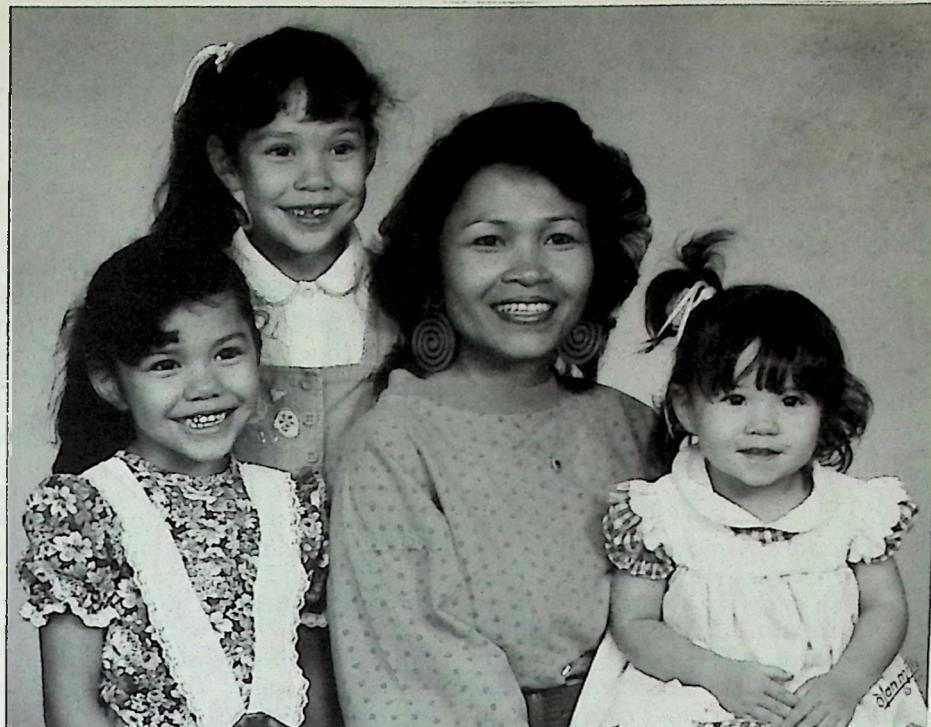
Dear Tom:

You are of course quite right and we stand corrected. In fact, I'm a afraid you are too kind in referring to our article on Pretty Good Privacy (PGP10.ZIP). It's a good program and we omitted the usual second pass on this article botching among other things the name as Pretty Good Protection vice the correct Pretty Good Privacy title as well as the spelling of the authors name (correctly Phil Zimmermann). Actually I was aware that the British actually cracked ENIGMA making our obvious faux pas in claiming U.S. credit for it the more damning. Worse, this was an important story on an important issue that is being picked up all over the country - complete with our errors.

I'm not quite convinced we wouldn't have had stored program computers without Turing. Such developments often happen nearly simultaneously in different parts of the world when their "time" has come. I'm having a little difficulty picturing a world where it failed to occur to anyone that they could "re-wire" their hardware in a stored numeric series.

But your point is well taken that there is a real danger of loss to society in disabusing individuals over matters not apropos to the subject at hand. The only proper arena to discriminate on matters of sex is sex. And computers, mathematics, national security, employment, and achievement in research and academia, are all rather distinctly not in that arena. I didn't know Turing was gay, and I'm going to guess it took a pretty strong intellect to function competently, much less brilliantly, as a known gay in that era. I would like to think he would have a clearer path today.

For our readers who may be wondering, Tom Jennings authored the original FIDO BBS in 1984, started FidoNet which today sports more than 11,000 member BBS systems world-wide, and was



awarded the Andrew J. Fleugleman award for technical excellence for same.

Jack Rickard

Dear Mr. Rickard:

This letter has several purposes, first and foremost to thank you for a very enjoyable magazine, BOARDWATCH. I look forward to every month's issue. I enjoy reading the latest and greatest in the on-line world. Certainly, I know of no other publication that caters so well to modemers, and includes many helpful items for BBS system operators.

In particular, I enjoy reading Alan Applegate's technical column and your "Editor's Notes." Now that we've met you and your two daughters, perhaps a photo of Mrs. Rickard is in order in a future edition.

Secondly, I would like to add my support of your publication's advertising policy. A buck is a buck, and while I don't agree with some advertiser's sexual preference, their dollars spend as well as anyone's and keeps BOARDWATCH rolling off the presses. For that I am very grateful to all of your advertisers.

Lastly, it is indeed on a sorry note that I inform you that after 5 years of serving the Houston on-line community, HOUSTON INLINE is closing its doors on August 31, 1991. Ron Crowther, who has maintained our Houston BBS list for the last several years, will be going back East. Ron certainly deserves a lot of credit for the success of all BBS systems in the Houston area.

Effective with the September Houston Area 713 BBS list, I will be taking over as list editor. The Houston Area 713 BBS List will be available from my BBS, THE ATOMIC CAFE BBS, at (713)530-8875. I would appreciate it if you make the necessary changes to your "Boardwatch List of BBS Lists."

Thank you Mr. Rickard

David E. Wachenschwanz.

Dear Mr. Wachenschwanz.

Thanks for the note on the change of guard in Houston. We'll be most happy to add your system to our List of Lists. I don't share your sorrow that Ron has moved on. While it may be a loss to Houston, I'm persuaded you can carry on in good style. And it's been my observation that list keepers never quit-

they just move to new cities that ALSO need BBS lists. I'm hoping we'll see a Ron Crowther BBS list from his new location.

Mr. Applegate has been on hiatus due to pressing career affairs, but we're assured that he will be rejoining us shortly with his regular column.

Lastly, I actually have three daughters. I'm mildly embarrassed to have apparently inadvertently converted Boardwatch into the Rickard Family Photo Album but let's not do anything HALF way. On the previous page you'll find a photo of Fortunata Comendadore Almacen Rickard, my wife of sixteen years, and all three girls in order of tonnage: Jessica, Jennifer, and Jacquelyn. I've been advised as of yesterday afternoon that we STILL don't know what causes this and can't find any way to stop it. Clearly, the mustard seed/honey/dill paste painted on the front door didn't cause the angel to pass us by. A fourth spawn of clan Rickard is due this coming April 18. I've spent most of this afternoon taking my wife around the neighborhood introducing her to all the little boys in the area so she can see what they look like and hopefully figure out how to make one, but thus far she seems determined to populate the planet with little femme fatales - which is actually ok by me. She most commonly goes by "Nancy", an unfortunate Americanization of her family nickname of "Nating". She hails from the small village of Catmon Bago on the island of Cebu in the central Philippine Islands.

Jack Rickard

Dear Jack,
Enjoyed your non-cryptic August column. Prompts me to pass along a thought of mine (& maybe others, but who knows?): As an answer to that political malaise of many, who feel they can't have an impact on ye olde political process, wouldn't it be interesting if ordinary citizens got the line-item vote? Never mind a line-item veto on the budget that presidents always seem to be seeking, but a citizen referendum, line-by-line, on the federal budget bill. This would all be done via a national voting BBS-like system,

of course. Text of all legislation would be on-line, as would the Congressional Record, of course, etc. (Live coverage would be on C-Span.)

I suppose we could go all the way with such a system, and just have a citizen vote on every piece of legislation. It'd be technically possible, no doubt, though where would we all get the time to figure out how we'd like to vote? And of course, there'd be a need for a Constitutional Amendment of significant impact to enable it all, never mind the technical aspects.

But it certainly would get folks directly involved again, and would lessen the impact of lobbyists, who then would have to lobby every citizen instead of just, what is it, 535 solons? all within easy commuting distance at the Capitol? Another topic, the de-regulated phone system (it may be that this effort at de-regulation will, like the airline deregulation effort, yield a more painful monopoly that we ever had before under regulation, but that's an aside): Seems to me I remember seeing something in a Hayes 1200 baud modem handbook (can't find it in the 2400 manual) showing a hookup from computer to modem to ham radio. Is it possible to do this? Is anyone doing a BBS by ham radio link? Here encryption would seem profoundly useful. Would also set you free from the phone system. Perhaps also make it cheaper to DX (is it?) around the globe via the Kennely Heavyside E-Layer, is it? (I remember but a tiny bit of this ham radio stuff from my high-school days). Just curious to know if you know of anything/anyone doing something like this.

Sincerely
Bill Wilt
Northeast Albuquerque
New Mexico

Bill:

The concept of electronic democracy is indeed an enticing one. It brings up the rather long running debate over Jeffersonian vs. Hamiltonian democracy the essence of which is do we select our wisest and best to decide for us or do we select minions to represent us. A very real

case can be made both ways - accounting for the length and persistence of the debate. My own personal views tend somewhat away from the government by herd hysteria format, but admittedly the wise and beneficent club of sage fathers theory has some serious flaws as well - particularly where it happens to strike reality a glancing blow. Either way, I agree that there is certainly room for political activism, consensus building, and action via the uniquely participatory elements offered by the online world.

A line item vote by the technically modem equipped? Where do those NOT so equipped fall into this plan? Since our Congressmen, who's full time job revolves around considering and voting on budgetary and legislative matters, don't actually all read all of what they're voting on, what would inspire the online population to be knowledgeable on what THEY are voting on under such a plan? And might the media gain an enormous power beyond what they already have under such group mob-ocracy? Would this upset a fairly robust current balance between government, media, and people now status quo? The concept has been around since an early Heinlein story in the 1960s that I am familiar with and almost certainly predates that. It still has some technical and social problems 30 years later, but is nonetheless interesting.

As to PC to HAM radio, what you describe is widely known as packet radio. The Tucson Amateur Radio group was experimenting with packet radio as early as 1981. In 1985, they released their new TNC2 packet radio device. It has grown into a communications medium in its own right and the HAM's are curiously unconcerned with local telephone installation fees, long distance rates, and telephone credit cards. The primary drawbacks are there are strict regulations prohibiting any type of commercial message traffic and you need an Amateur Radio FCC license to participate. The FCC just made this easier by introducing a technician class license that does not require Morse Code proficiency.

Hardware-wise you will need a device termed a Terminal Node Controller (TNC) to perform the packetization and addressing required under the AX.25 packet radio recommendation. It also includes an internal Audio Frequency Shift Keying (AFSK) modem. The TNC 1 was originally developed by the Tucson Amateur Packet Radio Corporation (TAPR) in 1982. They sold the unit in kit form and licensed it to manufacturers. The TNC 2 was developed in August 1985 and provided operation up to 9600 bps in a much smaller package containing three circuit cards, components, and instructions for assembly for \$110. Contact Andy Freeborn NOCCZ, Tucson Amateur Packet Radio Corporation, 5222 Borrego Drive, Colorado Springs, CO 80918; (719)598-8373.

If you are not interested in putting together kits, Gwyn Reedy of Tampa operates a small business titled PacComm that sells ready-made packet radio equipment. He sells a very simple little terminal node controller titled the TINY II for a very reasonable \$119.95. Contact Gwyn Reedy, PacComm, 3652 West Cypress St., Tampa, FL 33607; (813)874-2980 voice; He also operates a BBS with information on an entire line of packet radio equipment for both HAMs and commercial use at (813)874-3078.

In the just interesting related BBS department, Dr. Jeff Wallach of Carrollton Texas operates an electronic bulletin board system dedicated to Satellite Imaging and AMSAT activities at (214)394-7438. Finally, Ohio is just a wasp nest of packet radio activity with about 300 stations on a radio Wide Area Network (picture BBSs with no wires). Gary Sanders runs a very informative HAM BBS that IS accessible by telephone titled N8EMR Ham BBS at (614)895-2553 we found very useful.

There are some commercial efforts at radio connections including AT&T's Safari laptop with e-mail and IBM/Motorola's ARDIS project. Most seem directed at over the road trucking companies and both

the vision and pricing of these systems is not only limited, but generally silly.

Basically, I see Personal Communications Network telephone technology and cellular telephone making the concept largely moot - but you still wind up paying the telephone company. I'm still looking for a pocket cellular telephone with an RJ-11 jack in it for a modem. It'll happen.

Jack Rickard

Dear Mr. Rickard

I write this letter in the wake of FidoCon '91 and it is an open letter to all who attended the conference. A constant theme throughout the conference was that the virtual community created by BBSes would be a great egalitarian tool, forming a universe that would be untainted by racism, classism, or discrimination of any type.

As the Black Female in attendance at the conference, let me inform you that you have a long way to the realization of that goal. I was ill treated by conference organizers who saw it fit to first register White attendees who were behind me in line. This slap in the face was succeeded by two days of averted eyes and uncomfortable replies to my attempts to discuss conference proceedings with other participants. I was relegated to the role of nonperson at this conference, by people who continually spouted how wonderful they are because they can chat by computer with persons who are confined at home. Even you, Mr. Rickard, put up a shield so that you could ignore my attempts to speak with you.

Shame on you! The attendees at FidoCon have left me with an everlasting impression that they can deny their prejudices on the keyboard but in practice have no qualms at being rude to persons who are different. Is the keyboard a haven for those who cannot be human and humane in the world at large? Or is it that the attendees (who never stopped congratulating themselves on their genius) place themselves on a plane too high to deal with people who use the tools that they create?

I did meet a few notable people who provided some kindness during those horrible three days. Let me thank Gene and Katie Hamilton for their openness. I hope that the vast majority of the people who did not attend this convocation are similar to the Hamiltons, decent people who are unafraid to be open to those who are different.

The computer is a valuable tool for communication. A tool. Don't fool yourselves; you may know how to manipulate this tool, but it will not erase the prejudices of the user. This is a small world. I challenge you to look up from your keyboards, abandon your virtual community, and participate responsibly in the real community.

Sincerely,

Lisa M. Downing

Dear Ms. Downing:

You cover a lot of uncomfortable ground here, but let's mark it off a yard at a time. In general, I can't help much with averted eyes and uncomfortable replies. It is possible to mandate equality and agree that it is desirable, but we can't force everyone to "be comfortable." I'm going to guess I have a problem with your characterization of yourself as treated as a "nonperson" at the conference. Whenever you bring in over 400 people from around the globe, the vast majority of whom have never met in person, and put them in the same place at the same time, the first day is a little awkward for everyone. It always is for me. They tend to clique up among those they DO know - at least at first and those who get the most out of such conventions work quite hard at breaking through the ice. If you want to get really conscious about it and ascribe lack of success in this to your blackness, and that works for you, have at it. Fat, cross-eyed, or stuttering would work about as well, but the polished, pretty, white, and genteel seemed a little uncomfortable as well at the start.

In broad generalizations, I do find most of the online crowd more tolerant and accepting than most. At the same time, many are attracted

to the relative anonymity of the virtual world through their keyboards precisely because they are somewhat uncomfortable in real world social situations - let's avoid the terms socially graceless or maladjusted.

The reason the virtual online society will be largely classless and colorless is that there isn't any means to tell if the person you are dealing with is black, white, handicapped, isolated, etc. There is a marvelous equalizing effect wherein you are judged by your written word alone - because that's all anyone has to go on. A conference such as the one here in Denver, is a "real" world exercise. In a perfect real world it shouldn't make a difference, but it probably does - at least at some level. In the online world, it shouldn't make a difference, and it generally doesn't.

I have no idea what sort of "shield" you think I put up at the show. If I did so it was not to avoid talking to you or anyone else. I talked with what seemed like hundreds of people from around the world. I certainly didn't intentionally shield anything and don't recall avoiding a black woman. I apologize for any brusqueness on my part. In truth, I myself am a bit more comfortable with the written word than a public speaking role and was put in a position of speaking quite publicly. The intensity of this meeting was such that from my point of view everyone was constantly talking to everyone, and someone was wanting a word for virtually the entire show. And I did quite desperately want to talk to all of them, but there were three days and 408 people. Despite the fact that I slept less than 6 hours in four days, many of those I particularly wanted to speak to, including the Hamiltons, wound up being three minute conversations in the lobby when I myself would have much preferred 45 minutes over coffee. I am married interracially, cross-culturally, and bi-lingually and am really not at all uncomfortable with a very wide array of people one-on-one - much less a black American that speaks the same language. I am a tad uncomfortable with large crowds - but I did the best I could. Bottom line

is that I doubt you were as unique and out of place as you apparently delight in thinking you were.

The registration incident is a bit more concrete. The FidoCon committee handled registration and I had no control or even input on that process. But while I do not condone even the possibility of what you describe, I'm having a little trouble picturing it actually happening. Every time I happened by the registration area early in the conference, there WAS no line - more like a mob scene with people in one enormous and thoroughly confused knot. While not precisely the way I would have handled it, I can't really picture how you determined that someone "behind you in line" got served ahead of you. I would have been encouraged to see some semblance of a "line".

While a number of things happened this year that I would have done differently, there wouldn't have been much I could have done about it had I known. For this reason, among others, we've formed a company (ONE, Inc.) specifically to put on the Online Networking Exposition and BBS Conference (ONE BBSCON) here in Denver next year. It won't actually be a FidoCon and we expect more on the order of 1200-1500 people rather than the 408 attending this year. Some problems will get better and others probably worse. But I'm going to guess that I can state with some confidence that registration will be handled quite professionally. It is certainly my intention that it be so. I would certainly like to see you at next years event - leaving the "only black female" role at home and bringing an online enthusiast to the table. I'll not base my "everlasting impression" of you on one letter.

Jack Rickard

TELEBITS

PC MAGAZINE ONLINE MODEM GIVEAWAY

PC Magazine has been pretty progressive regarding online activity. For some time they've operated the PC MagNet service on the CompuServe network. The service has recently been expanded and renamed ZiffNet. The parent company of PC Magazine is Ziff Communications. Ziff also publishes PC Week, PC Computing, PC Sources, Computer Shopper, MacWEEK, and MacUser magazines.

ZiffNet goes beyond another "me too" online service. It provides several databases we find useful including Computer Database Plus. This database provides the full text of articles appearing in some 45 computer related periodicals. It also provides article abstracts from a wider range of 125 publications. Another database we find useful is Computer Directory. This little item contains profiles of some 69,000 computer products and 11,000 company profiles. The ZiffNet Reviews Index catalogs some 8500 product reviews appearing in PC Magazine, PC Computing, and PC Week since 1987.

The service also provides all the little utility programs that appeared in PC Magazine over the past several years ready for download along with numerous shareware programs. Recently, they've begun offering Hayes Microcomputer Products SMART COM-EZ terminal program for download.

To promote the revised online service, ZiffNet is giving away a free Hayes Ultra 9600 bps modem to one caller each day for 100 days running from August 7 through November 14. They actually pick a 10 minute time slot for each day and do a random drawing from everyone who's logged on during that time. The service is run by 15 system operators now under Rick Ayre. CompuServe subscribers can access ZiffNet by simply entering

GO ZNT: at any prompt. ZiffNet, One Park Avenue, New York, NY 10016. Interestingly, Ziff Davis just purchased Public Brand Software, a shareware vendor previously owned by Bob Ostrander.

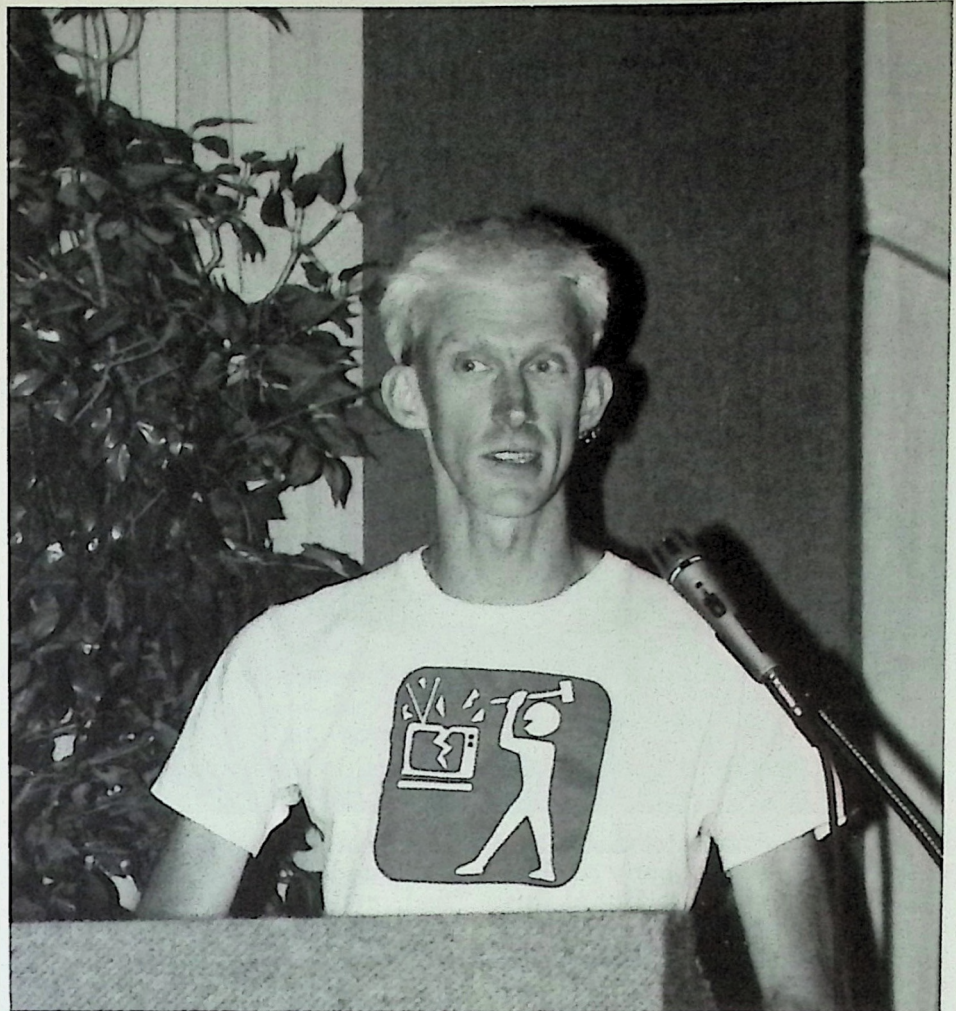
In the area of rumor, it would appear that PC World wants to be online as well. The magazine seems to be planning a system that also uses primarily X.25 network connections although we're not sure which network. The surprise may be that they are seriously considering using COCONET software with the Unix operating system to do the deed. First reviewed in Boardwatch nearly two years ago, COCONET provides a very easy to use graphical interface but requires callers to use a specific proprietary terminal program to access the graphics.

FIDOCON91 - 408 ATTEND BIGGEST BBS BASH EVER

The International Fido Network, or FidoNet, has grown from a handful of BBS in 1984 to over 11,000 systems today. Starting with a meeting in Ken Kaplan's living room in 1985, an annual fact-to-face convention, the FidoCon, has been held each year. The FidoCon86 meeting in Colorado Springs was probably the hey-day for this convention with some 135 attendees. In recent years, it has dwindled down to 75 or 80 of the faithful. Additionally, the convention had developed a reputation as something of a tough crowd best avoided among most modem and commercial software vendors.

FidoCon91 represented a dramatic reversal in fortunes, proving that with a bit more promotion and more participation from industry vendors, the concept of an industry trade show for the online world was indeed viable. A total of 408 BBS operators attended this year's event along with some 22 vendors presenting their wares. Many had no FidoNet affiliation at all but all seemed excited to see such an assembly of BBS people.

The show started off with a keynote speech by Phil Becker of eSoft Inc. and the presentation of a round dozen BBS software au-



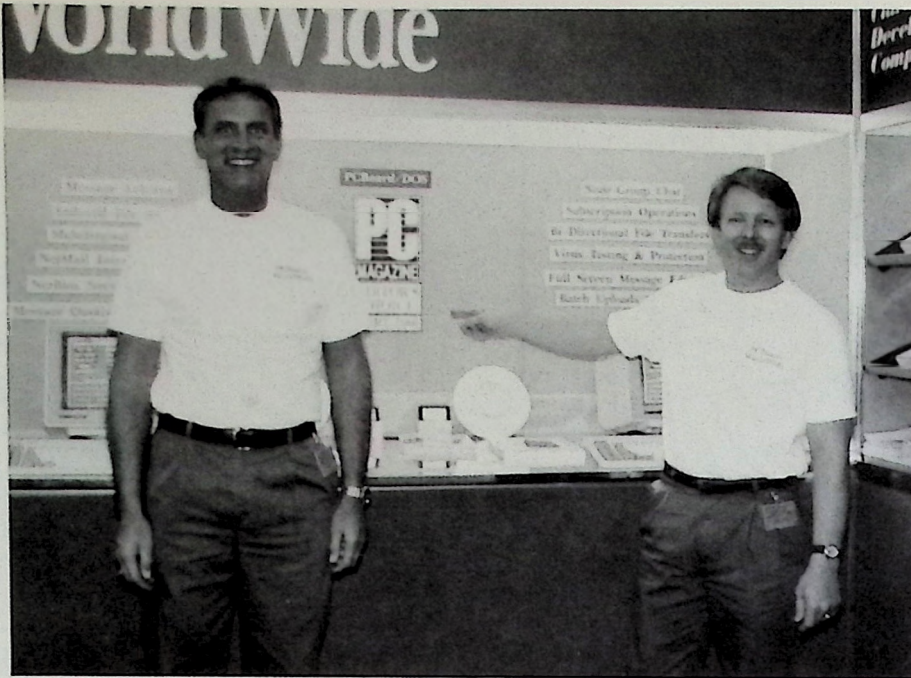
Tom Jennings - Founder of the International FidoNet

thors. In itself, this comprised the largest group of BBS software authors ever assembled anywhere. Fred Clark, author of PCBoard, and his entire crew were there along with Jim Harrer and the Mustang software team that produces Wildcat! BBS. eSoft and their entire TBBS staff were on hand, Scott Brinker represented Galaticomm (Major BBS), and Frank LaRosa, author of Searchlight software, was there as well. Wynn Wagner III, author of Opus BBS; Adam Hudson, author of QuickBBS; Steve Gabrilowitz and Richard Creighton, current owners of QuickBBS; Scott Dudley of Maximus were also introduced. Andrew Milner, author of Remote Access traveled from Perth Australia to attend the show.

Tom Jennings, who originally wrote Fido BBS and started FidoNet, arrived with Tim Pozar, au-

thor of UFGATE, a popular FidoNet/UUCP gateway program, in Tom's propane-powered 1963 Rambler Classic. For many FidoNet attendees, this was their first glimpse of the somewhat unusual man who started it all.

Other notables in attendance included Chuck Forsberg of ZMODEM; Ray Gwinn, author of X00 FOSSIL program; Vince Perriello of BinkleyTerm; Thom Henderson, author of ARC and SEAdog (now SEAmail); Jeff Rush, inventor of echomail; Randy Bush, who did much of the early documentation of FidoNet technical standards; George Peace, FidoNet Zone Coordinator for North America; Tony Davis, Zone 1 Echomail Coordinator; and many others were on hand.



Fred Clark (left) and David Terry of PCBoard at FidoCon91

Beyond the dozens of notables, there were sysops - many celebrities in their own right. But at this convention, almost everyone there fell into that category in one sense or another.

Guests began registering Thursday evening and by Friday morning at 9:00 AM, the party was in full swing. Sessions were held three abreast all day through Sunday afternoon. Mitch Kapur, founder of Lotus Development, and John Perry Barlow, of the band Grateful Dead were there representing the Electronic Frontier Foundation along with Steve Jackson of Steve Jackson Games. Jackson had his BBS seized by the Secret Service a year ago and is currently bringing suit, with the help of the EFF, against the agency. They participated in a number of sessions revolving around issues of ethics, privacy, the media, and legal issues to the enthusiastic approval of the attendees.

Almost all of the BBS software vendors held sessions demonstrating the latest features of their new releases - and while there was some grumbling from the old guard FidoNet attendees about the commercialism, many who came in

search of the "right" software were delighted to be able to look, see, feel, and touch virtually all the major packages up close and side-by-side at the convention - as well as talk to the developers directly.

Several notable new products made their introduction at the show. SouthCoast engineering showed a small circuit card that monitors the number of rings coming into your modem. If your bulletin board fails to answer the telephone within the set number of rings, the card assumes the computer is locked up or otherwise remiss and does a hardware reset of the computer.

eSoft showed off the new TBBS version 2.2 (still coming Real Soon Now) while Mustang showed off their new 3.0 version of Wildcat!. CompuCom modems converted more than a few with their new V.32bis model available at \$299 for system operators. They demonstrated the modem by connecting it to a US Robotics HST Dual Standard, still the darling of the BBS community, and passing files back and forth at full V.32bis 14,400 bps speeds. Index Systems showed an 8-line caller ID monitoring device for PCs and some fax switches

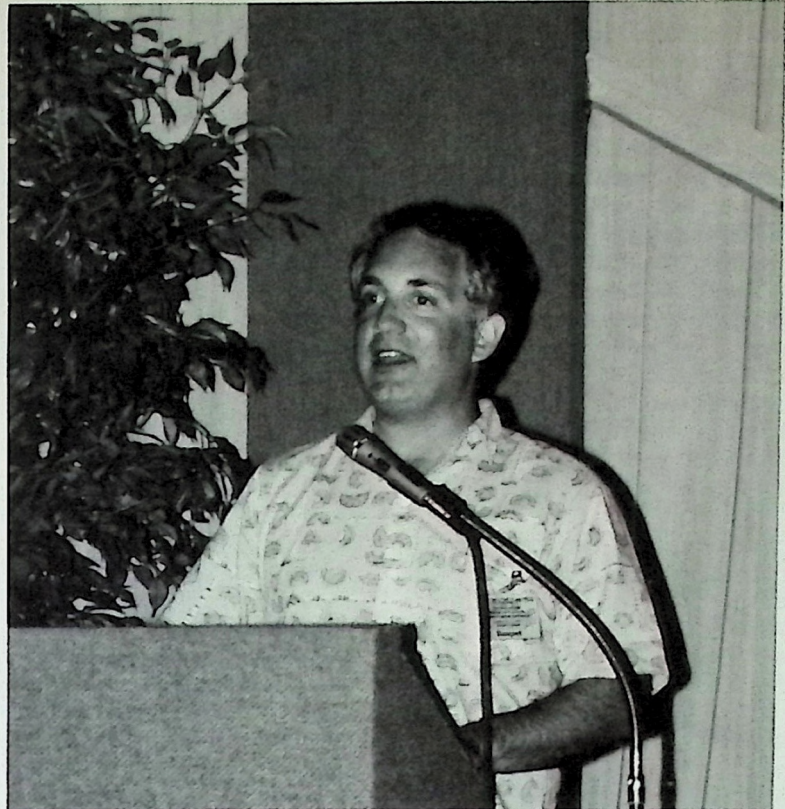
along with Hayes modems. CDB systems demonstrated a door program for PCBoard systems that processed credit card orders automatically. John Friel of the Forbin Project was on hand with QMODEM. In all, some 22 vendors displayed their wares in a spacious, well-appointed vendor area. PCBoard really showed out with an eye-popping 30-foot long professional booth display. By all accounts the setup of the vendor area went more smoothly than many of the vendors could ever recall experiencing at a trade show, and much of this was credited to the work of Chris Anderson, one of the FidoCon91 committee volunteers.

One of the most popular sessions was about connecting your BBS to the Internet. Tim Pozar demonstrated UFGATE, a utility for gatewaying FidoNet messages to Unix UUCP hosts. Chris Ambler, a CalPoly graduate student wowed the group with a demonstration of FSUUCP - a suite of Unix mail utilities ported to the DOS environment. This effectively gives users UUCP/Internet mail capabilities on a laptop - a personal mailer for Internet. A \$35 shareware program, you will see more of this.

In another session on the National Research Education Network (NREN), Randy Bush noted some concern over the eventual outcome of NREN and its effect on the Internet. He described a scenario of "dancing elephants" with Automated Network Services (ANS) serving as a means for IBM and MCI to gain control of the Internet, market it to the Fortune 1000, and give the rest of the online world little notice. On the other side of the dance floor, CERFNet, PSI, and UUNET had joined forces to create CIX, and rumor has it that Sprint may be cozying up to them. Bush, long recognized as FidoNet's ambassador to Internet, agreed to host three echomail conferences on Internet concerns including INTERNET.TECH, INTERNET.NREN, and INTERNET.FIDO - available on his FidoNet system at 1:105/42. Bush's Internet address is randy@psg.com.

Dave Hughes of Old Colorado City Communications was at his finest - dramatically introducing a NAPLPS editor and terminal program. NAPLPS (North American Presentation Level Protocol Syntax) is a public domain ANSI standard for graphics and is used by Prodigy, in slightly modified form, to deliver impressive graphics screens online.

Apparently, Hughes had talked Microstar Software Ltd. president Peter Jordan into releasing their \$1000 commercial graphics editor program as a \$50 shareware program and made the announcement at the convention. Microstar actually does much of the design work on Prodigy. Between the editor and the terminal program, Hughes introduction marked the first availability of such tools to the BBS community and caused quite a stir. Although Hughes has been championing the use of NAPLPS online for many years, until now, the tools just haven't been widely available to the BBS community. With the availability of an editor and terminal program, we would look for an increased interest over the coming year.



Mitch Kapor of the Electronic Frontier Foundation

Prodigy itself showed up in force - hosting a hospitality suite with beer, soda, and snacks and giving away Prodigy T-shirts. They were

not the only commercial online service at the event. Steve Laliberte of BIX was all eyes at the event along with several representatives from CompuServe and ZiffNet (formerly PC Magnet). They were also not the only hospitality suite in evidence with gatherings available in the Bit Bucket Software suite, eSoft Inc.'s suite, and our own Boardwatch rooms.



Twelve BBS Software Authors - All In a Row

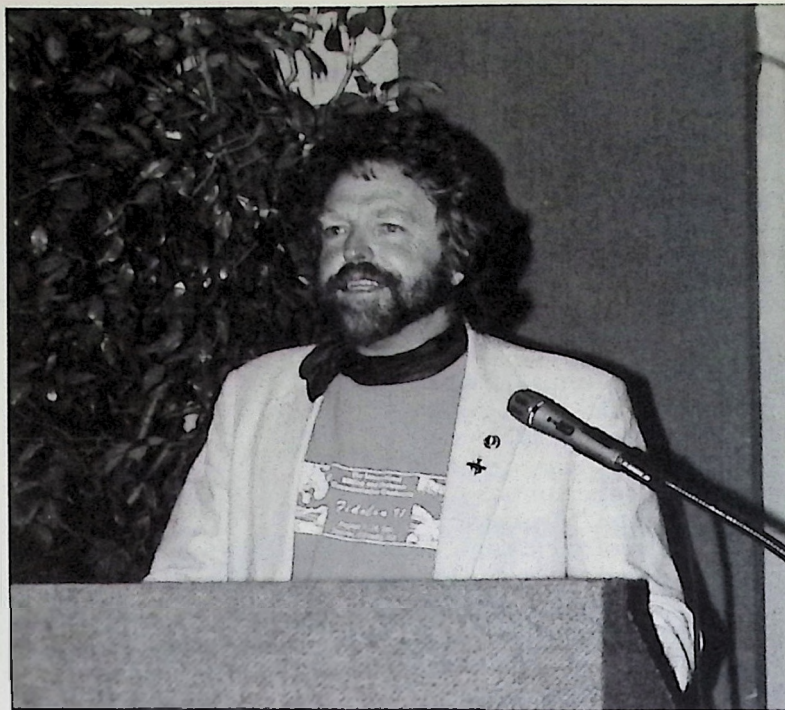
I'll somewhat immodestly report that "the Jack and Phil Show", a couple of relatively informal sessions on how to promote your BBS and make it profitable, held by myself and TBBS author Phil Becker, was quite well received. The concept for this session arose out of several conversations we had during the previous year. At Boardwatch, we talk with a lot of BBS operators each day and we noticed some common techniques used by the financially successful ones. Phil Becker, as author of one of the leading multiline BBS software packages, also talks to a lot of BBS operators in the course of a normal day. In comparing notes, we found the same elements

cropped up time after time and decided to do a little impromptu presentation.

We weren't prepared for the response. The session room was literally packed wall to wall, there were reportedly a hundred people in the hall outside, and we had a few peeking in through the windows. The enthusiasm of those attending the session was just slightly overwhelming and clearly this is a topic of intense interest to BBS operators. We'll try to repeat this in some kind of larger meeting facility next year with more sessions on this type of topic.

The conference drew operators from around the world. At least five came from the Netherlands, a couple from Australia, several from Switzerland. Dmitry Klemenkov of Leningrad USSR, who had registered was unable to make it - this was the weekend of the coup. I found it somewhat interesting to meet Heikki Rensalov. Heikki was a farmer from Finland. He was quite interested in BBS and heard that the United States was where the action was so he came. Seemed to be having the time of his life. I've got a feeling life on a farm in Finland will never be the same.

The banquet on Saturday night was a relative let-down. It was sold out weeks in advance and should have been the highlight of the convention. But most of the show organizers who spoke wound up breaking down in tears at the microphone and one left the banquet ill after a few minutes. The presentation of door prizes was particularly gruesome in the amateurish manner in which they were tossed into the audience. At one point, a sysop was awarded a copy of Wildcat! 3.0 but the organizers withdrew the prize after they learned he either already ran the package or ran a different one (we never did learn which). This was somewhat puzzling in that everyone in the room either ran Wildcat! or ran another package - they all were sysops. But Mitch Kapur, John Barlow, and Tom Jennings were all enthusiastically received and the food was excellent.



John Perry Barlow - Electronic Frontier Foundation

Our participation in FidoCon91 was largely an experiment to see if the BBS world was ready for an industry trade show. I suppose at this point the votes are in and as I count em, there were 408 wildly enthusiastic ayes and no dissenting votes at all. As a result, Phil Becker and I have formed a third company titled ONE, Inc. (Online Networking Expositions) to host an annual BBS show. We plan a bit larger and perhaps wider presentation next August for 1200-1500 online enthusiasts. We're titling the show The Online Networking Exposition and BBS Conference (The ONE BBSCON) and it is tentatively scheduled for August 13-16, 1991. We're forming an Executive Advisory Board of industry leaders that already includes Jim Harrer of Mustang Software, Fred Clark of Clark Development, and Dave Hughes of Old Colorado City Communications. Jim Warren, founder of the West Coast Computer Fair has already been a big help as an informal kibitzer/mentor and the concept appears to be off to a good start. More on this in coming issues of Boardwatch.

HARDWARE REBOOT DEVICE FOR BBS

A common myth about running a bulletin board is that it will crash as soon as you walk out the door to take a weekend in the Mountains. Well, ok, so it's not a myth. Many system operators tell us they train their kids to reset the computer by pressing the reset switch if they are going to be away for a day or two. We tried this with our three-year-old but found the solution less than ideal. She reset it about 60 times one afternoon "just for fun" and it did cause some complaints.

But BBSs, particularly complex BBSs using lots of external door programs, do seem to cough a bit occasionally. As long as someone is there to reset them, it's not a big deal. But the result is that many BBS operators feel a little pinned to the house.

Jim Brandon of South Coast Engineering Services thinks he may have an answer. After looking it over a bit, we think he may be right. They make a small circuit card they call a BBS Remote Reset Device. It can reset the host BBS computer automatically if the system crashes.

Physically, the card is a small circuit card with just a few components that will fit into any XT/AT 8-bit slot. You disconnect the wire that runs from your front panel reset switch to a two-pin block on the motherboard and connect it to a similar block on the circuit card. Then you connect a similar wire from another block on the circuit card to the motherboard. In this way, the card is wired in series between the reset switch and the motherboard. The front panel reset switch still works.

The card also features two RJ-11 connectors. You simply route one to the telephone wall jack and the other to the first modem on the BBS. The card is wired in series between the modem and the telephone jack.

In operation, the card is quite simple. It's not dependent on the CPU and it uses no memory. The only thing it gets from the computer slot is power. It simply counts the number of rings coming in. If enough of them come, it resets the computer. The number of rings is selectable by a jumper on the card with a default ring count of 6. It can be set for 2-12 rings. So if the computer locks up for whatever reason, the next caller won't get a BBS but they will trigger a hardware reset of the system. Naturally, you want your system to include necessary **AUTOEXEC.BAT** commands to bring up the BBS on a reset.

About the only drawback we could find to the BBS Remote Reset Device was its propensity for rebooting the system when you may not want it to. Many BBS go down intentionally for a few minutes to run an external event - processing mail for example, scanning new uploads for viruses, or running a defragmentation utility on the hard drive once a week. If a caller dials the BBS during this period, and the modem doesn't answer, the card will rather blindly reboot the system during the external process. This is likely NOT what you want to have happen.

The solution is quite simple. Simply take the modem off-hook. Within a few minutes, the local telephone central office shuts down the line and no further in-

coming rings will be detected. When you put the modem back on-hook, the line clears - normally within 15 seconds. Callers get a busy signal. The trick of course is to do this automatically from a batch file so when your external event takes down your BBS, it will take the modem off-hook and subsequently put the modem back in the on-hook condition before bringing the BBS up. The only drawback to THIS solution is that if the computer hangs during one of these external processes, the card doesn't do any good.

We found two shareware utilities that accomplish this reasonably admirably. Joseph Sheppard's **ATSEND11.ZIP** program let's you send almost any Hayes AT command set command to your modem from the DOS command line by simply entering **ATSEND** followed by the command. This also works from a batch file. **ATSEND11** is available from Sheppard's **THE LEDGE PCBOARD** at (818)352-3620.

A bit smaller and more specific utility is Jem Miller's **MODEM.EXE** Version 2.5, available in the file **MODEM25.ZIP**. The command **MODEM 1 OFF** takes the modem on COM1 off-hook and **MODEM 1 ON** puts it back on-hook. **MODEM25.ZIP** is available from Jem Miller's **DIA COM** system at (405)946-3675. Subscribers to the Boardwatch Online Information Service can of course download either utility from there as well at (303)973-4222 and both are widely available on BBSs nationwide.

The card does feature the ability to ignore incoming rings during the boot cycle using a timeout feature between resets. This prevents systems that take several minutes to boot up from constantly rebooting when calls are continuously coming in. The ring holdoff feature can be set for up to 3.5 minutes.

The reset function provided by this card is handy, but it's not something you would want to pay a lot of money for. Fortunately, you don't have to. The best feature of South Coast's BBS Ring Count/Remote Reset Device is the price. A single unit is \$59.95 and quantity dis-

counts begin at three units. They plan to ship an external model as well this month. More information is available from **NETWORK XXIII BBS** at (805)962-0122 and you can order online there. South Coast Engineering Services, 3463 State Street, Suite 187, Santa Barbara, CA 93105; (805)681-7327 voice; (805)964-6343 fax.

NAPLPS - A GRAPHIC FUTURE FOR BBSs

The bulletin board world has needed an avenue for expansion into easier to use, more graphical interfaces. A couple of pretty significant problems block this avenue. Like most things online, they revolve around speed and standardization.

Most BBS use either or both of ASCII (American Standard Code for Information Interchange) or ANSI (American National Standards Institute) standards for transmitting information. Virtually all terminal software supports both. ASCII is used by the plain text systems you see such as the **WELL** while ANSI, actually a shortened term referring to an ANSI standard for terminal communications, is used to produce the color graphics, blinking characters, and animation you sometimes see on local bulletin boards. To move beyond either one of these requires a real standard to emerge to handle more advanced graphics. A standard that can be adopted by both terminal software developers and BBS software developers. Both ends of the communications link have to support the same communications technique to be workable.

The other issue is of course speed. ASCII is the fastest common communications medium online. ANSI, while more colorful, also incurs the overhead of transmitting control characters to make all that stuff blink, squiggle, and change colors. To go beyond ANSI toward a more graphic interface, will undoubtedly incur more overhead in the transmission.

The speed problem pretty much precludes the use of widely used bit-mapped graphic formats such

Talk fast.

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- Industry standard V.42 and MNP4 error correction;
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Speed isn't everything.

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- An easy-to-read 20 x 2 LCD display;
- Menu control;
- Line condition monitoring; and
- Support for 2 or 4-wire leased lines.

For a little less money, you can have the standalone Model U-1496E with LED indicators and voice/data and answer/originate switches.

Model	U-1496	U-1496E	U-1496B
Physical	External	External	Internal
Full 40 character LCD Menu Tree	•	•	•
Speed and Compatibility			
V.32bis at 14.4, 12.0, 7.2 Kbps	•	•	•
V.32 at 9.6, 4.8 Kbps	•	•	•
V.22bis/V.22/BELL 212A at 2.4, 1.2 Kbps	•	•	•
V.21/BELL 103 at 300 bps	▲	▲	▲
V.33 at 14.4, 12.0 Kbps	•	•	•
V.29 at 9.6, 7.2, 4.8 Kbps	•	•	•
V.27ter at 4.8, 2.4 Kbps	•	•	•
G3 FAX	•	•	•
EIA Class 2 FAX Standard	▲	▲	▲
Dynamic Online Fall back/forward	•	•	•
Other Features			
V.42bis/V.42; MNP5/MNP4	•	•	•
Max. Throughput Possible(K); DTE	76.8	57.6	57.6
2-Wire Dial Up and Leased Line	•	•	•
4-Wire Leased and Dial Backup	•	•	•
Line condition monitoring	•	•	•
Read/Write/Reset Remote Configuration	•	•	•
Complete Diagnostic Capability	•	•	•
Synchronous Transmission Capability	•	•	•
Password Protection and Call Back	•	•	•
Also Included			
Warranty, Parts and Labor (years)	5	5	5
Money Back (days)	30	30	30
	•	Standard feature	
	▲	Can be upgraded	
Special Introductory Price	\$650	\$469	\$449
List Price	\$945	\$695	\$675

*Subject to terms and conditions. Prices and model specifications are subject to change without notice. MNP is a registered trademark of Microcom Inc. ZyXEL and U-MODEM are trademarks of ZyXEL Communications Corporation

And for the highest possible performance at the lowest possible price, our U-1496B PC internal card version is priced for all applications.

That isn't all.

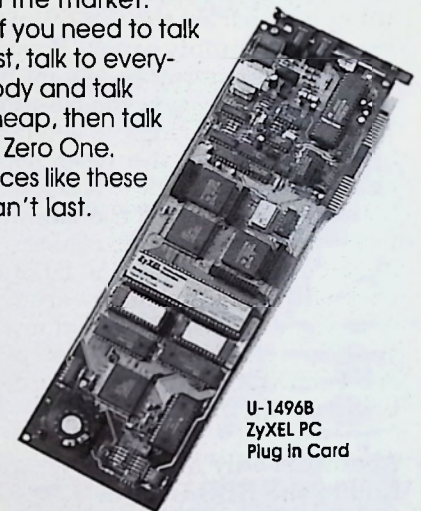
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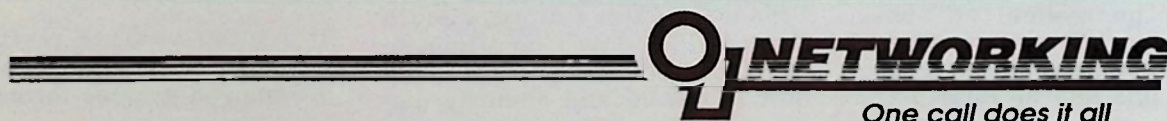
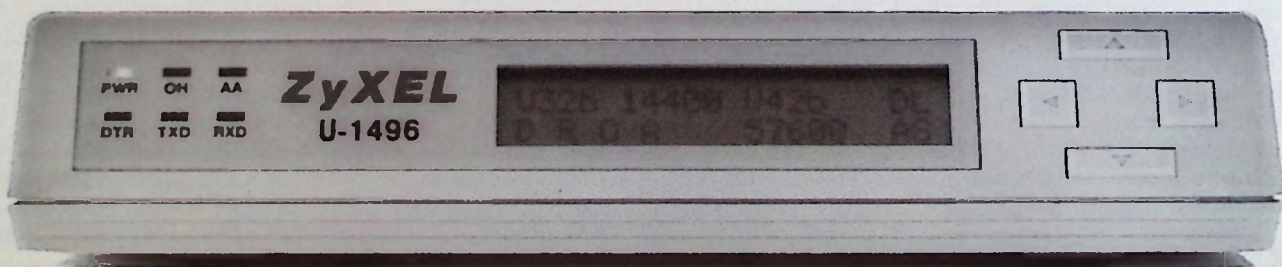


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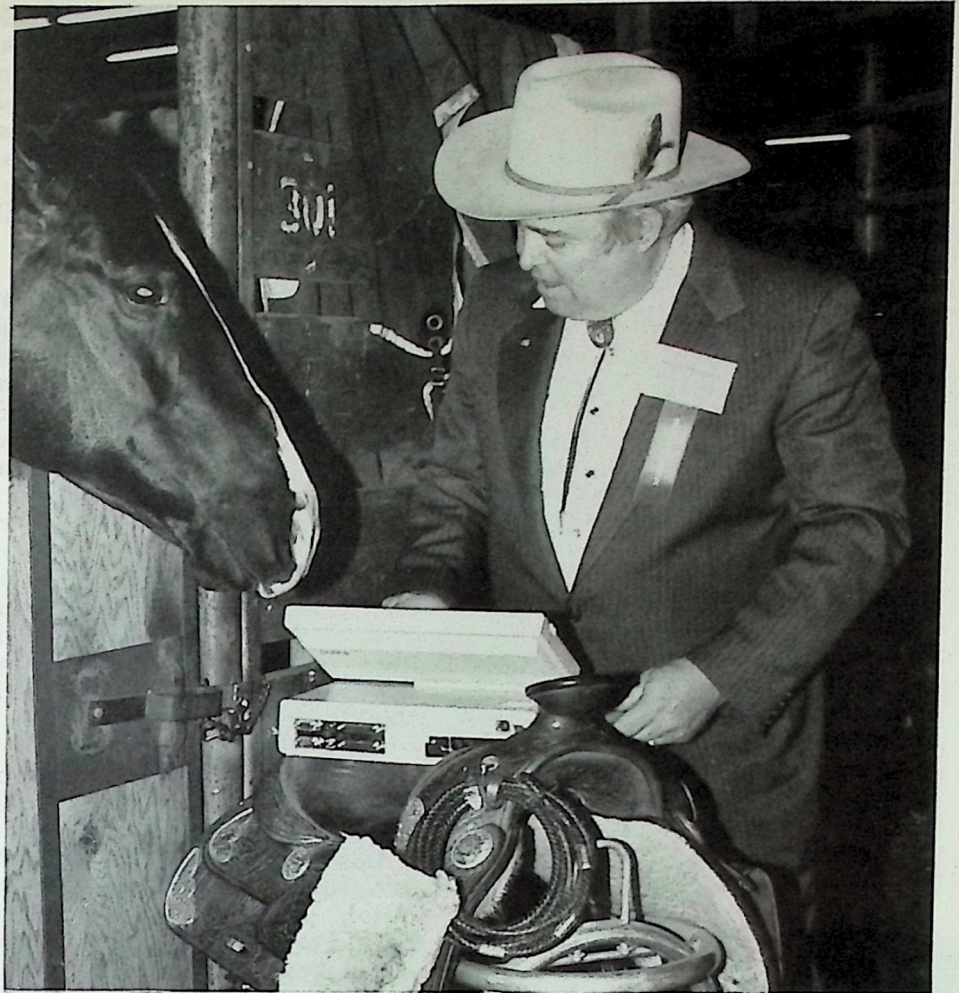
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as CompuServe's GIF (Graphics Interchange Format) file format. No one wants to wait five or ten minutes while a menu paints on their screen - no matter how beautiful. The price for CCITT V.32 9600 bps modems is dropping precipitously and so we can begin to talk about graphic interfaces for BBS that are bearable - but bit-mapped images still won't happen for some time.

Dave Hughes, a somewhat senior retired army officer who operates Old Colorado City Communications in Colorado Springs, has been singing the praises of a true public domain graphics standard termed NAPLPS for a number of years now. It hasn't made a lot of sense in the past because the speed wasn't there, and the tools weren't there, to effectively use it. Modem speeds are now to the point where NAPLPS graphics can be done with ease and in a fairly dramatic unveiling at FidoCon91 in Denver this past August, Hughes announced the availability of a couple of key tools.

NAPLPS stands for the North American Presentation Level Protocol Syntax. This can be thought of as a superset of ANSI graphics although that is not precisely correct. It is adopted by the American National Standards Institute and the Canadian Standards Association as part of the Presentation Level of the Open Systems Interconnect (OSI) suite. This is further considered the North American implementation of the International Standards Organization ISO 2022-1986 standard for extended character sets. What all this means is that NAPLPS has impressive credentials as an international standard for online graphics. It is not proprietary and anyone can design software to this published standard specification.

NAPLPS has a couple of real advantages as a graphics standard. First, it generates relatively small files - a 20K NAPLPS file is considered a whopper. Secondly, it is platform independent. A NAPLPS frame on a Macintosh, Atari, or IBM looks pretty much the same. Further, NAPLPS is extensible in a couple of ways. It uses Dynamic Redefinable Character Set



Dave Hughes Discussing NAPLPS - With Anyone Who'll Listen

(DRCS) tables to define up to 96 special characters any way you want. In this way, you can design a DRCS table to support chess characters, for example, or mathematical symbols including the integration symbol used in calculus etc. In fact, Hughes is repeating last year's online course in chaos mathematics, taught by MIT and ported to eight local high schools in Colorado and Montana. The program was successful last year. This year they are going to incorporate NAPLPS to do a more graphic run at the whole concept using DRCS tables for math functions. The nice thing about DRCS tables - you don't have to have them to use them. They are typically 4K in size and you can easily transmit them as part of the first frame and the terminal program receiving it immediately has use of the new character set.

Another extensible element of NAPLPS involves font sets. The ISO standards committee has already defined entire font sets for Chinese, Korean, Japanese, and a dozen other languages. NAPLPS can accommodate these font sets almost effortlessly. In this way, basic NAPLPS can be easily extended to handle 4000 Chinese characters.

Finally, NAPLPS has a built in ability to pass other data in a transparent mode. Conceivably, you could have a small GIF bit-mapped image in center screen, with much less data intensive NAPLPS graphics surrounding it.

NAPLPS has received a big boost in credibility by the success of Prodigy's online service. Prodigy has been pretty successful in luring an impressive number (1 million by some estimates) of people online that might otherwise never

have made the trip. NAPLPS had been used by other videotext services including Knight-Ridder's defunct Viewtron, Canada's ALEX, and NYNEX's also defunct IN-FOLOOK. But Prodigy has been the success story and their graphic interface has become the mark to emulate in online graphics. At the 2400 bps speed offered by Prodigy, it is barely endurable. At the 9600 bps speeds we will see become common over the next two years, it works just fine.

The problem with using NAPLPS on BBS is that no terminal programs, other than the proprietary Prodigy package, have really been available for it and none at low cost. Further, to generate NAPLPS images requires some sort of drawing program - and there haven't been any inexpensively available to generate NAPLPS files. But Hughes has been proselytizing on the topic pretty persistently and has made his best headway among some innovative software developers in Canada - most notably Microstar.

The next time you log onto Prodigy, look at the bottom of the welcome screen. Microstar is listed as the company making the Prodigy graphics possible. Prodigy has some proprietary magic in it, but broadly speaking, the Prodigy interface is done in NAPLPS.

Microstar makes an editor titled MGE - Microstar Graphics Editor. Hughes has preached the gospel of BBS/cottage online services to Peter Jordan, president of Microstar. Apparently, his vision caught because in August, Jordan agreed to release their \$1000 commercial MGE program as a \$50 shareware release. He also agreed to release their Personality Plus III NAPLPS terminal program at \$25. Essentially, this gives the online community two shareware tools to make a start at NAPLPS.

In September, Hughes traveled to Ottawa to help Microstar set up a FidoNet compatible BBS using Remote Access BBS software and the BinkleyTerm mail program. The system, titled **Microstar Software Support**, operates at (613)727-5752. The two programs are available for download there.

The graphics editor is in the file **SHARENAP.EXE** while the Personality Plus III terminal program is **PP3PAC.EXE** - both are self extracting compressed file sets. For Internet aficionados, these programs are also available by FTP. FTP CSN.ORG. Change directory to **OldColoCity**.

Microstar's graphics editor and terminal program are interesting, but not overpowering in elegance. They are actually demonstrations of Microstar's main line of products, the decoders and display drivers used to implement NAPLPS. The company sells a **\$1000 MVDI-T Developers Toolkit** that allows anyone to incorporate NAPLPS capability in their C language program with as little as 9 lines of code. They do want royalties on the resulting product but the royalty schedule is actually pretty modest.

So through Hughes' efforts, the BBS community now has a couple of readily available shareware programs to start to work on NAPLPS as a graphics solution, and a pretty quick path to incorporating NAPLPS with more mainline terminal programs in the future.

Currently, there is only one true BBS we know of that uses NAPLPS today and that is not actually for the BBS itself. **Russell Country BBS** of Hobson Montana runs on Remote Access BBS software at (406)423-5433. The interface is quite normal but the BBS is devoted to the display of native American Indian folk art online. All the art is in NAPLPS frame format and so you can dial this system and view NAPLPS frames online.

Dave Hughes, Old Colorado City Communications, 6 1/2 N 24th St., Colorado Springs, CO 80904; (719)636-2040 voice; (719)632-2658 BBS; FidoNet 1:128/67. Internet: dave%oldcolo@csn.org

Microstar Software Ltd., 100-34 Colonnade Road North, Nepean, Ontario Canada K2E-7J6; (800)267-9975 voice; (613)727-5752 BBS.

NOVELL SUES TWO CALIFORNIA BULLETIN BOARDS FOR PIRACY

Novell Inc. has filed suit against two California bulletin boards for software piracy. Computer equipment, software, backups, and business records were seized from **THE RED OCTOBER BBS** (415)935-4105, operated by Steven Marenkov, Custom Software Services, Inc. of Walnut Creek California on August 7th as well as **THE WISH LIST BBS**, operated by Doug Luce, D&D Computing Inc. of Redondo Beach California on July 31. Neither system is now in operation.

Novell filed copyright and trademark infringement lawsuits in a federal district court and obtained the seizure orders. In their September 4 announcement, Novell claims both systems sold and distributed pirated NetWare operating system software as well as hundreds of other commercial titles by other vendors.

HAYES ANNOUNCES NEW OPTIMA 96MODEM

Hayes Microcomputer Products announced on September 9th a new addition to the Smart Modem family and it is quite interesting. The new **OPTIMA 96**'s most striking feature is the lack of a suggested retail or list price. Designed to be a low cost alternative to the Hayes Ultra 96, the company is pricing it very aggressively into the distribution channel, apparently in a move to counter the avalanche of very low cost V.32 modems currently flooding the market. The company expects it could eventually retail for as little as \$440. We found **COMP*USA** already advertising the modem at \$529 three days after the announcement.

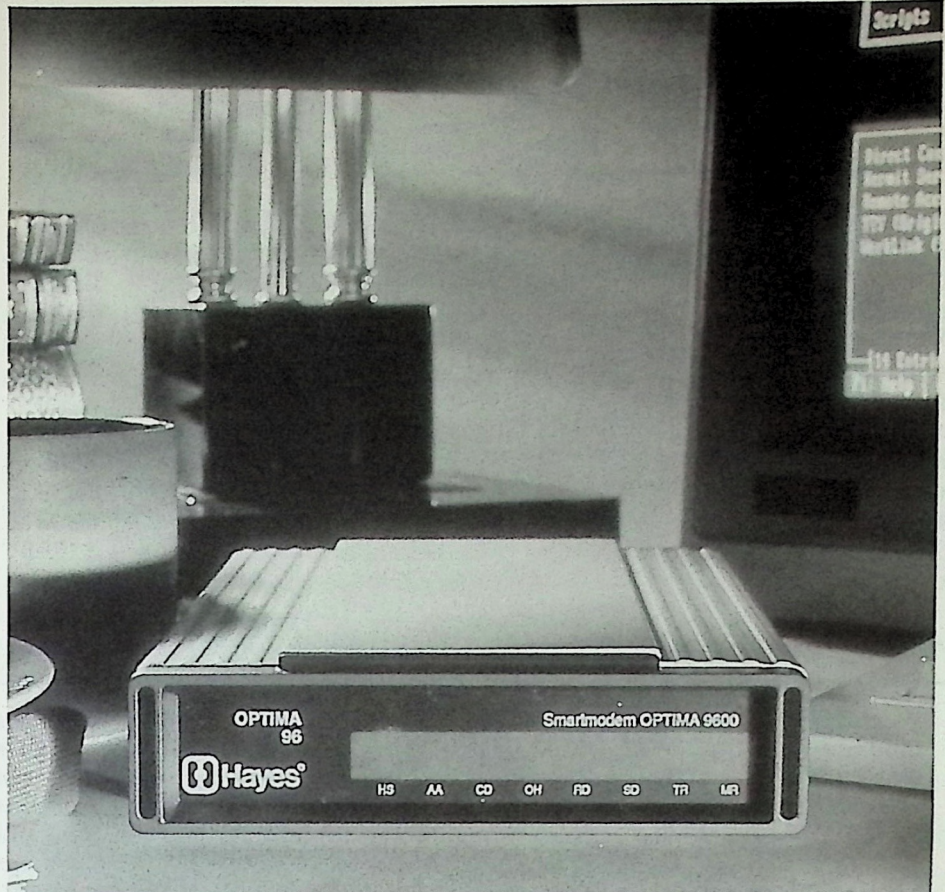
A number of modem companies offer a "low end" model with limited features, a cheaper enclosure, etc. That role is actually filled by Hayes acquisition of the Practical Peripherals line. The attractive element of the Hayes **OPTIMA** is that for the BBS world, it is for all practical purposes a top-end Hayes

Ultra 9600 without the baggage. The modem looks like an Ultra and acts like an Ultra when dialing BBSs or general online services. It still offers 9600 bps V.32 connections, V.42/42bis error correction and compression, and MNP 5 with the same theoretical top data transfer speed of 38,400 bits per second (bps).

The features sacrificed with the OPTIMA model include support for the earlier V-Series 9600 proprietary modems, which never made much impact on the BBS world, the dial X.25 feature, MI/MIC & V.25bis Mini/Mainframe computer support, and network support. Most of these features were widely unknown and loudly unused in the BBS world - though some were quite popular in corporate installations. The dial X.25 (X.32) feature was interesting in that using Hayes Smartcom III software, you could hold up to four simultaneous online sessions on X.25 networks such as Sprintnet, Tymnet, CompuServe Network, etc. But without the special software, it added little to the dialing day of most BBS callers.

The result is a very handsome, quality modem at a street price for everyone that will undoubtedly fall below \$500 within a few months. According to Hayes president Dennis C. Hayes, "Our pricing of OPTIMA 96 to distribution assures a competitive low price to computer users. By not establishing the estimated retail price, we have taken away one of our competitor's best weapons. We know that by doing this, our position as the mainstream PC modem market leader will be greatly enhanced."

The modem comes bundled with Smartcom EZ, a simple-to-use communications software program that can be upgraded to Smartcom Exec for an additional \$35. It also includes a two year warranty, and coupons for MCI, AT&T, CompuServe, and GENie. There are no current plans for a sysop discount program on the OPTIMA 96. Hayes does operate an excellent toll-free product support bulletin board at 800-874-2937. Hayes Microcomputer Products, Inc., PO Box 105203, Atlanta, GA 30348; (404)840-9200 voice;



Hayes Microcomputer Products' New OPTIMA 96 Modem

CARDINAL INTRODUCES BBS DISCOUNT PRICE ON 9600 BPS MODEMS.

Cardinal Technologies Inc. has announced a discount on their 9600 bps modems for BBS operators. The 9600V42 model is an external CCITT V.32 9600 bps modem with V.42 error correction and V.42 bis compression along with Microcom Networking Protocol level 5 (MNP5). The list price is \$699 and BBS operators can obtain this modem for \$269 each. The Model 9650V32 is an internal model with V.32, and MNP 5 but without V.42 with a list price of \$599 and a BBS discount price of \$247 each. Cardinal Technologies, Inc., 1827 Freedom Road, Lancaster, PA 17601; (800)-233-0187 voice; (717)293-3055 fax.

U.S. ROBOTICS, INC. GOES PUBLIC WITH INITIAL STOCK OFFERING

U.S. Robotics, Inc. announced a public stock offering August 30. With 9,337,532 shares of stock, the company is offering 2,200,000 shares to the public and existing shareowners are offering an additional 1,400,000 shares. The initial public offering price is expected to be between \$11.00 and \$13.00 per share. Hambrecht & Quist Incorporated, Donaldson, Lufkin & Jenrette Securities Corporation, and Volpy, Welty & Company will manage the offering. A copy of the preliminary prospectus can be obtained from Hambrecht & Quist Inc., One Bush Street, 15th Floor, San Francisco, CA 94104.

U.S. Robotics has been very successful in the BBS market with their Courier line of modems. The company recently acquired Touchbase Systems picking up the

SYSOP MODEM DISCOUNT PROGRAMS V.32 AND V.32bis MODEMS

Vendor	Support BBS	Sysop Price	List
ATI V.32	(416)756-4591	\$350	\$699
Cardinal 9600V42	none	\$269	\$699
CompuCom V.32bis	(408)738-4990	\$329	\$539
CompuCom V.32	(408)738-4990	\$229	\$339
GVC SM-96 V.32	(201)579-2380	\$379	\$695
Hayes Ultra 144 V.32bis	(800)874-2937	\$599	\$1199
Hayes Ultra 96 V.32	(800)874-2937	\$499	\$999
Intel 9600EX V.32	(503)645-6275	\$399	\$799
Multi-Tech MT932EAB V.32	(612)785-9875	\$449.50	\$899
Practical Peripherals PM9600SA	(818)706-2467	\$339	\$699
Twincom 9600 V.42	none	\$279	\$299
U.S. Robotics DS V.32bis	(708)982-5092	\$499	\$1295
Ven-Tel V.32	(408)922-0988	\$499	\$899

* All modems quoted in external models where available

Worldport line of portable pocket modems. U.S. Robotics, Inc., 8100 North McCormick Blvd., Skokie, IL 60076; (708)982-5010.

SYSOP HYSTERIA OVER NEW YORK SALES TAX

Like many states, New York has suffered in the budget area over the past few years. Basically, government at all levels has developed an insatiable appetite for money - probably beyond the usual insatiable appetite for money governments have historically had. And also like most states, New York's solution is to find more money - through taxes.

A concerted effort was made in their last budgetary session to "close loopholes", a bureaucratic euphemism for the process of identifying those not giving "enough" and redesigning the laws to try to get more of it from them. For example, as of September 1, if you file an auto insurance claim and receive some money to pay for damages to your car, the insurance company is now supposed to withhold sales taxes on it.

One of the targets of their latest foray is software. Software is a funny thing. It's a bit like a service, and a bit like a book, and there are some fine lines drawn regarding just exactly what it is. The consen-

sus that has emerged over the years is that software done as a custom process is a service - not subject to sales taxes, whereas software that is "pre-written," put in a box, and sold off the shelf is a product subject to sales tax. Apparently, a number of vendors, including Radio Shack, had been taking off-the-shelf software, installing it on hardware and selling the package and claiming the software was then a "custom" installation and the software not subject to sales taxes. Since they did pay sales taxes on the hardware/software package sold, we don't find this particularly evasive, but New York thought they were really taking a beating on this.

So as part of the state budget law passed in July 1991, they inserted one of the most gruesomely all encompassing pieces of verbiage conceivable. It basically says if you are selling software, thinking of selling software, transferring software of any kind, thinking of transferring software of any kind, under any conceivable situation, including moving a diskette from your coat pocket to your shirt pocket, you owe the state of New York sales tax on the full retail price of the software, the diskette, both pockets, and any clothes the pockets may be attached to.

A number of bulletin boards operating in New York are licensed as businesses and in fact do pay sales taxes on the paid subscriptions to their BBS. As part of the process of implementing the new rules on pre-written software, the state sent out a general New York Tax and Finance Notice N91-34 to all businesses classified as a "computer business". As a result, several bulletin boards received these general notices and reading the incredibly loose verbiage of the bill, understandably assumed the worst. As written, the bill implies that BBS operators must pay sales taxes on any shareware or public domain software downloaded from a BBS - as high as 8.25%.

A few bulletin board operators issued a call to arms and the riot was on. Early speculation concluded that the state wanted to collect sales taxes on the declared registration fee on each shareware program callers downloaded from their systems. Worse, the reasoning went, all hobby systems would now have to get a business license and the telephone company would then charge them commercial rates on their telephone lines. According to Tony Mack, an Albany BBS operator, dozens of BBS were actually closing down their file sections. The hysteria grew by the minute. Some said the tax authority was logging onto bulletin boards within 48 hours of the September 1 effective date of the law. Marty Winter, operator of a part-time BBS posted numerous messages in the IBMBBS forum on CompuServe. The topic also received a lot of attention in the EFF forum on the WELL.

But according to spokesmen from the New York State Department of Taxation, while bulletin boards are liable for sales taxes on actual subscriptions to the boards, no tax is due or contemplated on the transfer of shareware or public domain software by modem. And they were considerably confused by the 60 calls they received from panicked sysops on a single day in September.

So, it would appear the great New York Sales Tax fiasco was a dud. But it does point up several issues regarding the interaction between

a high tech world on one hand, and a decidedly low-tech legislative structure on the other. Repeatedly, we see well intended laws drafted that appear to have a dramatic and sinister effect on our online environment. When the original framers of the law are confronted, it becomes obvious they didn't even contemplate the existence of such a thing, much less the impact such a law might have. The problem of course is that once a law is passed, whatever the intent and current enforcement policy, the words lay there like a bomb waiting to go off in the future. The wording on the New York law should not only be revised to deal with this situation, but we find it unconscionably vague in any event.

The other surprising thing we found about New York had little to do with software. Their tax law specifically levies a tax on printed matter and computer services but exempts all newspapers and periodical magazines from sales tax. The common theory here is that if you tax public communication, you are in effect taxing and regulating free speech, prohibited under the constitution. If newspapers and magazines are so protected and exempted, why then are BBS paying sales tax on THEIR subscriptions. We won't be so tedious as to once again make the case that a BBS is a publication - it's been done to death. But, once again we must raise the question, why aren't the same constitutional protections so clearly available for print media extended to the electronic arena? As we move into an ever more electronic future, must we slowly and subtly forfeit our freedoms in a devils trade for technology?

System Operators in New York who desire authoritative rulings on specific tax matters can obtain them by contacting New York State Taxpayers Service Bureau, Correspondence Section, Building 8, Room 902, State Campus, Albany, NY 12227; (518)438-8581.

TELECOM DEVICE FOR DEAF/MODEM PACKAGE

Dillip Emmanuel has an unusual name, an unusual mission, and an unusual life. Born deaf in Sri

Lanka in 1953, his family moved to England in 1954. He was enrolled in the Maude Maxfield School for the Deaf in Sheffield England during a fairly unenlightened period. After going through a series of schools for the deaf, he was admitted, with some reluctance, by Sheffield University in 1976 as the first deaf student. He completed a Bachelors degree and helped develop a Teletext Decoder for the Deaf now used by British Television.

He came to the U.S. on the Winston Churchill scholarship and received a Masters Degree in Electronic Engineering from the Rochester Institute. Subsequently, he wrote an electronic mail system used by NASA.

One of his current projects involves a dissatisfaction with TDD devices for the deaf. He's designed a com-

bination 300 baud modem/TDD device with software on an internal circuit card - reportedly much easier for non-technoid deaf users to install and use with a PC. In addition to outgoing calls, it can also be used as an answering device, and conceivably as a means to offer a TDD line on a BBS. The MIC300i is priced at \$349. Microflip, Inc. 11211 Petsworth Lane, Glenn Dale, MD 20769; (301)262-6020 voice; (301)262-4978 fax; (301)588-0965 TDD.

NEW SEAMAIL - AN AUTOMATED DIALUP MAIL SYSTEM

by Chris Anderson
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sociates (SEA [tm]) has just made life a little easier for its PC customers.

Although originally introduced by the FidoNet computer hobbyist network, FidoNet-based electronic mail technology has been increasingly popular for handling corporate electronic mail as well. Such software offers unattended routing of messages to other locations, store and forward ability, and completely automated transmission of mail and files between employees in one or many geographically separated sites using the standard dialup telephone system. Since the advent of laptop computers, this has proven an especially useful technology to employees traveling with modems. An entire electronic mail system can be built from these relatively inexpensive software "mailer" packages.

Both the hobby and corporate user has much to look forward to in SEA's latest offering, SEAmail 1.00. There are a great many features not offered in SEA's earlier product, SEAdog. Of special importance to the hobby segment of the market, SEAmail offers WaZOO (Warp Zillion OPUS-to-OPUS) session support using the ZMODEM protocol in addition to its own SEALink protocol. WaZOO originated with the OPUS CBCS bulletin board software authored by Wynn Wagner III and has become very commonly used in FidoNet. This allows SEAmail to speak intelligently to many non-SEA mailers that are unable to take full advantage of SEA's own protocol.

These "protocol session handlers" are now modules external to the core of the SEAmail software, making it possible to simply "plug in" any new protocols that the industry may develop in the future.

In addition to WaZOO, SEAmail offers FAX and printer session handlers. Instead of dialing and linking with another mailer, this allows SEAmail to route or forward mail to remote FAX machines and even local printers. The FAX option is very convenient, as text based mail from any source can be directed to companies and individuals that have only FAX ca-

pabilities. (Note that this requires a FAX card or FAX modem be made available for SEAmail's use).

The Printer session option allows messages to be automatically copied to a printer, or sent to a printer for reading in lieu of supplying each user access to the mailer system itself to read their mail. Another important feature for large users is SEAmail's ability to function on a LAN system. In this way, mail can be routed to the printer down the hall.

Perhaps one of the most dramatic changes from SEA's previous philosophy is the full support of what is called "five dimensional addressing" for itself and for other systems. Whereas it previously only properly supported `zone:net/node` style addressing, it now fully supports `zone:net/node.point@domain` addressing that has become so popular in the hobbyist market in order to address mail between separate mail networks. To accomplish this, all system addresses are boiled down to phone numbers. This allows some new features to deal with the problem of systems that participate in multiple networks and so use more than one address. SEAmail now automatically recognizes that mail destined to a common phone number can be sent in one call, regardless of the fact that multiple addresses exist for the outbound mail.

SEAmail's user interface is a major step forward from their previous product. Pop-up menus replace the old text file method of system configuration, and the mail read/reply software also provides a much more user friendly environment. An impressive session and call status display is present at any time the mailer itself is running. Statistics are kept and displayed on a wide variety of system functions.

Caller I.D. is supported, and will use phone number matching and logging as an additional level to an already security minded package. This will eventually make call-back modem systems and call-back verification obsolete in many applications where Caller I.D. is available from your local phone company.

For those that can't do without EVERY last whistle and bell, SEAmail even offers an audio user interface as well. Sound files identical to those used on Macintosh systems can be stored and triggered by various mailer events. If you'd like your system to scream (literally) when a mail transfer fails, or hear the sound of the Enterprise's transporter system come alive when a file is left on your system by another, SEAmail is only too willing to oblige. If you are familiar with the lawsuit between SEA and Phil Katz of PKZIP archiver fame, you'll be amused to discover that the system configuration is initially set to scream whenever a .ZIP file is received, although this can be modified to suit your taste in archiving software!

Shortcomings are few, but a few of them are worthy of mention.

First, as with any new package, a few bugs remain to be resolved. Although the routing of locally generated messages (using the VIA command) works as expected, the ability to forward messages from other systems to other destinations (the FORWARD command) seems to work consistently only in a non-selective mode where it will from everyone to everyone. This is not often desirable.

Missing, but promised in a future release, is the ability to receive files into a separate "no password" directory from a system that does not offer a password. Although unimportant to closed corporate systems that always require passwords, this is a most useful security feature in the hobbyist's use of the package where the system is essentially open to the public. This feature was part of the previous package, SEAdog, and we are assured by the author that it will be returned.

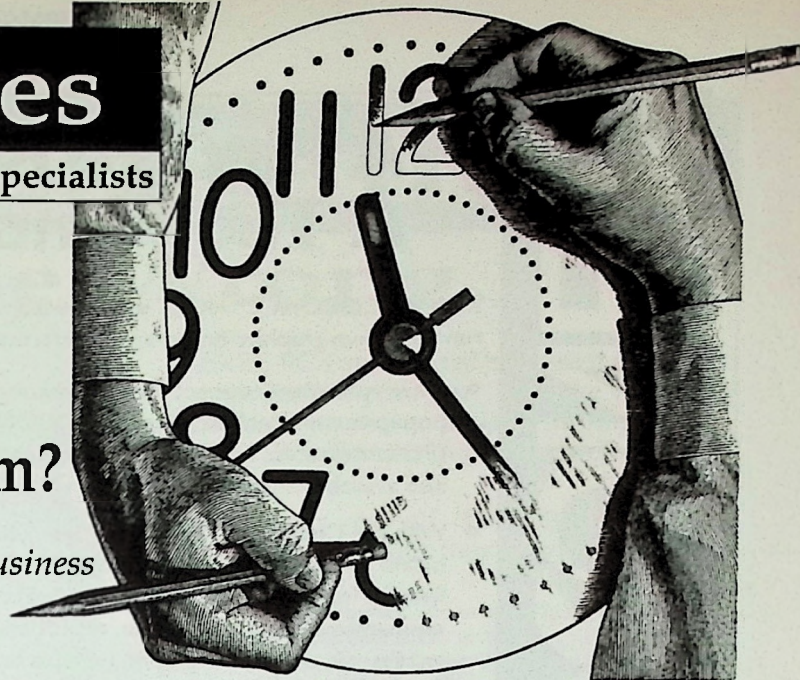
The FidoNet EchoMail technology method of conferencing between users of different systems is not as well supported as the GroupMail method. The built-in packer/archiver is slow compared to the older ARCMail utilities provided by SEA, and cannot easily be fooled into using alternative archiving software apart from

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There's a lot available for the TBBS/TDBS System Operator, as well as for anyone interested in an Information System (BBS). If you want to learn more about TBBS/TDBS just call our system and look through Our Demonstration and Sales Area and register as a customer. GW Associates offers full support to all System Operators and we have several excellent programmers available to help with your applications and customization. Please call our system at (508) 429-1784 (N,8,1) and keep up with our new releases or call us on our voice line at (508) 429-6227 if we can help you in any way. Installing and remotely supporting commercial systems is our ONLY business!

TBBS/TDBS SYSTEM ENHANCEMENT SOFTWARE

User Manager

The new User Manager for TDBS systems, the full registration and member tracking system that is a true member data base. It has keyword search, on-line user resumes to help users get to know each other, a notepad to let you keep notes on every user, etc. It will present SysOp defined text messages on pending expiration of membership and make the necessary access changes on expiration. Allows users to join as members or renew their membership using credit cards on-line. This program is priced at \$69.95

Message Manager

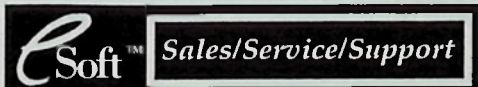
The Message Manager for TDBS systems. Some of the highlights of this package are: Support for up to 10,000 message areas; SysOp configurable full screen editor; SysOp configurable reply quoting; the capability of editing messages after they are saved; users can change several read options at any time and save them to disk to make the changes permanent; users can subscribe to up to 60 areas and see all the new messages in each area when they enter the message menu; complex search capability on any combination of FROM, TO, or SUBJECT fields; message text can be searched for strings; FidoNet format message import and export utilities are available. This program is priced at \$179.00.

Sales Manager

The powerful and productive On-Line Sales Manager. This on-line catalog sales program is written by Jeff Johnson, another pioneer in TDBS software, and it easily shows the power and capabilities of TBBS and TDBS. The Sales Manager will display a catalog of items for sale under categories you specify, each item can have a full descriptive text file attached to it and the user can place an order at any time and continue to browse through the catalog. When done the user selects to order and is presented with each item and given the opportunity to indicate how many are to be shipped. Developed as a modular package this software will handle everything from a low level order entry system to a fully featured point-of-sale package and do all the things you would expect of a full sales package. Please come and work with it on-line. Prices start at \$395.00.

On-Line Entertainment

The extremely popular game of StarQuest. This is the first multi-play, multi-user space game to run under TBBS/TDBS. You can create a universe of a size that is best for your system and its users and your users create and capture settlements and become active wheeler/dealers across your universe. Their settlements can be attacked and captured whether the user being attacked is on-line or off, and as the users gain in strength and worth the computer controlled pirates and the tax assessor will be there to lend a helping hand. This on-line multi user game has already proven itself to be popular with the users and it's not only a lot of enjoyment for them, but it can quickly pay for itself on systems charging for access. This program is priced at \$149.95.



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- Licenses, starting at \$395, are available in 2, 4, 8, 16, 32, 64, and unlimited simultaneous user versions. The COCONET HOST requires SCO® UNIX® or XENIX® 386. CocoTalk available for \$395.
- See for yourself: call our Technical Support BBS at (619) 456-0815 (1200 or 2400 bps, 7/E/1), download the COCONET Access Program, and find out why COCONET is the BBS software of the future!

"It's quick, intuitive, and we think it is probably the best interface we've seen online anywhere."

**Boardwatch
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ARC.EXE. EchoMail files once again require the "file attach message" be created in order to move EchoMail files to other systems. The older but quicker **ARCMail** utilities are unable to generate the ! character that must begin any file name in the file attach message in order to have it deleted after successful transmission. This requires either use of the built-in archiving method, or some fancy batch file footwork using the new **SEND** program that accompanies **SEAMail** since it is capable of adding the ! as required. It ain't pretty, but it can be used as an effective work-around.

GET and **SEND** remain one of the most useful features of **SEAMail** for companies who don't want to offer a graduate course on mail system use to employees. In addition to the e-mail functions that are actually quite easy to use, **GET** and **SEND** allow non-technical users to send or fetch any file from the home system with little difficulty. From the standard DOS command line, **SEND REPORT.TXT TO OFFICE NOW** is

about all they need to know to send the **REPORT.TXT** file to the system titled **OFFICE** in their phone directory. Likewise, **GET DAILY.TXT FROM OFFICE NOW** would cause the system to dial out, retrieve the **DAILY.TXT** file from the office system, and disconnect.

In all, the package is a vast improvement in user interface and features. As soon as **SEA** has released corrections for a few of the minor bugs and deficiencies, it will be somewhat easier to tame. **SEA-mail** retails for \$195. System Enhancement Associates, 21 New Street, Wayne, NJ 07470; (201)473-5153 voice; (201)473-1991 BBS.

MUSTANG SOFTWARE ACQUIRES MAIL READER FOR WILDCAT!

Mustang Software, riding high on the success of their new 3.0 release of **WILDCAT!** BBS (2500 copies shipped during the first **WEEK** of release), has begun an ambitious

acquisitions program - buying up some **VERY** interesting software companies. While several deals are pending, we can talk about their purchase of **Technique Computer Systems**. Recall from last issue our enthusiasm for the **WildPro Series 3** sysop utilities written by Greg Hewgill. The product is turning into a **BIG** winner for Mustang. As a result, they've bought out **Technique Computer Systems** to get Greg Hewgill and Scott Brynen as part of their R&D team. The acquisition also brings in house three other titles including **Silly Little Mail Reader (SLMR)**, **Tomcat**, and **T-Net**.

T-Net allows **Wildcat** BBS operators to form networks to share or echo message areas easily. **Tomcat** is a door program that allows callers to download a mail packet containing mail in selected conferences for reading/reply off line. And **SLMR** is an off line mail reader.

Offline mail has become increasingly popular. Rather than read and reply to each of twenty or more

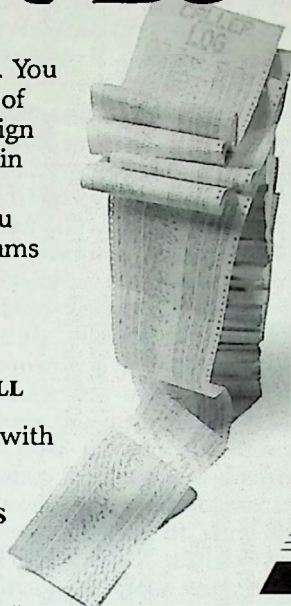
3,999,999 Callers Can't Be Wrong

And it's not just a number either. You see, it's each and every one of our callers that have helped us to design the most thorough and accessible BBS in the industry today. . .with over 250 dedicated phone lines available to you to access our more than 300,000 programs and files. . .day or night.

**NO HIDDEN COSTS
\$60 PER YEAR
DOWNLOADS ON YOUR FIRST CALL**

What's more, we don't hang you up with typical BBS time constraints.

**300,000 PROGRAMS AND FILES
250 DEDICATED LINES
150,000 MESSAGES**



EXEC-PC's unrestricted time use means more flexibility for you. . .so, take your time and peruse over 150,000 messages. EXEC-PC offers an end to "daily download panic."

Find out for yourself. 3,999,999 callers can't be wrong. . .and they aren't. . .they even tell us so.

"I have just sent you a renewal. This is one of the best BBS's in the world. Keep up all the hard work and thanks for your efforts."

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topical conference areas on a BBS, callers can select their "default" areas of interest and simply dial in and download a file containing ALL the new messages from each of those areas. Using offline mail readers such as QMail Deluxe, EZ-Reader, Silver Express, XRS, or Silly Little Mail Reader, callers can read and reply to mail conferences at their leisure offline without worrying about long distance charges or how much time they have left on the system. When they call next, they upload the resulting "reply" packet, and download any new messages.

In this way, BBS callers actually do most of their BBSing offline. Such programs have also become popular in the commercial online world with TAPCIS and AUTOSIG for CompuServe, ALLADIN for GENie, and SWEEPER for the WELL.

The one drawback to most of the offline readers for bulletin boards has been installation. To get most of these readers up and running

has NOT been trivial and for many callers - just not feasible. One of the most appealing things about Silly Little Mail Reader is its simplicity. Installation typically takes about three minutes and it would take a concerted effort by a talented mind to hose it up. While it lacks some of the more elegant flourishes of the new QMail Deluxe and EZ-Reader 2.0, it is more than capable for most applications and the easy installation and operation of this package may be more important for most callers.

With Hewgill and Brynen online with Mustang Software, we expect to see some impressive developments in the connection between BBS and caller as well as BBS to BBS for Wildcat! operators. Mustang Software Inc., PO Box 2364, Bakersfield, CA 93303; (805)393-0223 voice; (805)395-0713 fax; (805)395-0650 BBS.

DVORAK'S GUIDE TO PC CONNECTIVITY

John C. Dvorak developed a theme a number of years ago that electronic bulletin boards and modem communications were the unheralded "fourth" major application for personal computers after word processing, database applications, and spreadsheets. We tend to share his view and his Dvorak's Guide to PC Telecommunications book under the Osborne McGraw/Hill emblem provided a very timely shot in the arm for the BBS world.

We recently had a chance to take a peek at another seminal work under the Dvorak auspices in Dvorak's Guide to PC Connectivity. We've seen a couple of "connectivity" releases this past year and most of them were (yawn) trivia and tips about living with local area networks. LANs are not like paint programs, comm programs, etc. You don't play much with LANs. You're completely im-

BOARDWATCH MAGAZINE

LIST OF BBS SOFTWARE VENDOR PRODUCT SUPPORT/DEMO BULLETIN BOARD SYSTEMS - OCTOBER 1991

PRODUCT	COMPANY	BBS PHONE	NOTES	VOICE	MAILING ADDRESS
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IBM/MS-DOS

DCI	Norvald Software	(813)961-0788	.DOS		POB 280138, Tampa, FL 33692
DLX	Inner Loop c/o Baudtown	(818)893-7600	.Multiline - 32 lines - excellent chat/social system.	(818)893-2321	17939 Chatsworth St. #192, Granada Hills, CA 91344
Falken	Info*Share	(703)803-8000	.DOS/Multiline-16 lines-runs ext programs		PO. Box 1501, Woodbridge, VA 22193
Fido	Tom Jennings	(415)863-2739	.DOS/Single Line - Original Fido BBS Software	(415)861-7183	Box 77731, San Francisco, CA 94107
GAP	GAP Development Co.	(714)493-3819	.DOS/LAN 99 Nodes - Fast ISAM Searches		24242 Porto Fino, Laguna Niguel, CA 92677
Genesis BBS	Carver Downer	(315)592-7300	.DOS/LAN - Multinode - Flexible Doors		Box 267, Hannibal, NY 13074
InfoHost	A-Comm Electronics Inc.	(201)288-7792	.DOS/Multiline - Database	(201)288-7885	377 Route 17 South, Hasbrouck Heights, NJ 07604
Kitten	System Enhancement Assoc.	(201)473-1991	.DOS/Single Line - also SEADog Fidonet Mail Program	(201)473-5153	21 New Street, Wayne, NJ 07470
Major BBS	Galactcomm, Inc.	(305)583-7808	.DOS/Multiline - 255 lines-chat-multituser games	1 (305)583-5990	4101 SW 47th Ave #101, Ft Lauderdale, FL 33314
Maxhost	Don Mankin	(209)836-2402	.DOS/Single Line - Small, Easy to Run		231 Market Place, San Ramon, CA 94583
Maximus-CBCS	Scott Dudley	(613)389-8315	FidoNet compatible BBS - multi-node	(613)389-8065	777 Downing Street, Kingston Ontario, Canada K7M 5
Opus-CBCS	Opus-CBCS Development	(412)366-5208	FidoNet compatible BBS - multi-node	(412)364-4017	8024 Crest Road, Pittsburgh, PA 15237
Oracomm	Surf Computer Services	(619)346-1808	.DOS/Multiline - 32 lines - social chat	(619)346-9430	71-540 Gardess Rd., Rancho Mirage, CA 92270
Osiris	Micro Tech	(314)334-6359	.DOS/LAN Multinode 256 lines - Online Store	(314)335-5384	Cape Girardeau, MO 63701
PCBoard	Clark Development Company	(801)261-8976	.DOS/LAN-99 Nodes-Popular BBS for shareware BBS	(800)356-1686	PO Box 7135, Murray, UT 84107
PowerBBS	Russel Frey	(516)822-7396	.Runs under Windows 3.0-Up to 8 tel lines, Doors	(516)938-0506	35 Fox Ct., Hicksville, NY 11801
QuickBBS	Creighton/Gabrilowitz	(407)896-0494	.DOS/Single Line - Shareware clone of TBBS		POB 678255, Orlando, FL 32867
RBBS	Ken Cocusens	(703)978-6360	.DOS/LAN Multinode - Free - BASIC Source Avail	(703)978-4339	5020 Portsmouth Rd., Fairfax, VA 22032
Remote Access	Continental Software	61 9 389 8048	.DOS/LAN 99 nodes-QuickBBS clone - flex menus	61 9 386-5218	195 Adelaide Terr., Perth, Australia, 6000
Searchlight	Searchlight Software	(516)689-2566	.DOS/LAN - Multinode - Visual and easy to use	(516)751-2966	PO Box 640, Stony Brook, NY 11790
Splitfire	Mike Woltz	(515)225-8496	.DOS Single Line		Des Moines, IA
TBBS	eSoft Inc.	(303)699-8222	.DOS/Multiline - 64 lines per machine - good database	(303)699-6565	15200 E Girard Ave # 2550, Aurora, CO 80014
Tritel	Mark Goodman	(207)941-0805	.DOS Multi-Node - Fido capable - offline mail		PO Box 187, Orland, ME 04472
UFGATE	Tim Pozar	(415)695-0759	Utility to Import/export Usenet News from Unix Systems	(415)695-7727	671 28th St., San Francisco, CA 94131
Wildcat	Mustang Software	(805)395-0850	.DOS/LAN/250 Nodes - Very good on LAN installations	(805)395-0223	3125 19th St Ste 162, Bakersfield, CA 93301
WWIV	Wayne Bell	(213)208-6889	.DOS/Single Line - C source available with registration		904 Silver Spur Rd. #636, Rolling Hills Est, CA 90274

APPLE MACINTOSH/II

Hermes	Frank Price/AOC Software Inc.	(213)275-6975	.MAC - Multiline BBS for Macintosh - Very good		612 Doherty Road, Beverly Hills, CA 90210
Proline	pro-so/Morgan Davis	(619)670-5379	.Apple II/GS - Unix lookalike BBS - Usenet News	(619)670-0563	10079 Nuerto Ln, Rancho San Diego, CA 92078
Second Sight	FreeSoft Company	(412)846-5312	.Single Line BBS Software for Macintosh (prev Red Ryder)		(412)846-2700105 McKinley Road, Beaver Falls, PA 1
Tabby	Michael E. Conrick	(201)988-0706	.MAC - Fidonet Mail Interface for Macintosh		PO Box 307, Bradley Beach, NJ 07720
Telefinder	Spider Island Software	(714)730-5785	.Multiline Macintosh BBS - up to 20 lines	(714)669-9260	4790 Irvine Blvd. Ste.105-347, Irvine, CA 92720

OS/2

Magnum BBS	Chuck Gilmore	(818)706-9805	.OS/2/LAN-8 Lines per computer - looks like PCBoard	(818)706-9800	1285 Falling Star Ave., Thousand Oaks, CA 91362
Maximus-CBCS	Scott Dudley	(613)389-8315	.FidoNet compatible BBS - multi-node	(613)389-6065	777 Downing Street, Kingston Ontario, Canada K7M 5

UNIX

CocoNet	Coconut Computing, Inc.	(619)456-0815	.Unix - Hires Graphics like Prodigy - term program	(619)456-2002	7946 Ivanhoe Ave Ste 303, La Jolla, CA 92037
Magpie	Steve Manes	(212)420-0527	.DOS/UNIX Conferencing Software with unique threading	(212)533-1692	648 Broadway, Ste 300, New York, NY 10012
TEAMate	MMB Development Corp.	(213)318-5302	.Unix/Multiline - VT100 ANSI Graphics	(800)832-6022	904 Manhattan Ave., Manhattan Beach, CA 90266
WAFFLE	Darkside International	(408)245-7726	.DOS/UNIX - Provides UUCP function for DOS machines		PO Box 4436, Mountain View, CA 94040
XChange	Z/Max Computer Solutions Inc.	(315)622-4672	.Unix - Pull Down Menus/Pop-up Windows	(315)622-4577	PO Box 339, Clay, NY 13041

mersed in heaven or hell until the thing works and afterwards, it doesn't do anything jazzy BUT work - or fail - on a regular basis. They do magnify the usability of PCs in a work group situation, but there is no screen pop and sizzle to them. You simply have more hard drives than you did previously and can "communicate" in a seriously unglamorous fashion with people in the same building.

Dvorak's new book, actually written by Nick Anis Jr. and Werner Fibel, defines the term "connectivity" in an entirely different, and we think more usable and interesting fashion. It grapples with the daily hurdles we all face in sharing information across a much wider world than a Local Area Network. It does give LANs some attention, and modem communications frankly short shrift. But it handles a lot of the nagging details of file formats and the endless little hells we all go through in converting one word processor format to another, one graphics format to another and in general "connecting" the output of any one program to another.

The \$49.95 book includes three diskettes of programs that we found comprise a delightfully eclectic collection of utilities, small and some NOT so small, to make life easier in PC-ville. Notables? A copy of HiJaak, undoubtedly the most popular graphics file manipulator/conversion program on the market and one we had paid \$104 at discount to pick up ourselves not a week before. Another example: WORD FOR WORD, a superb utility to convert various word processor file formats from one to another with ease. We use it regularly here at Boardwatch but the version included with this book is clearly a later release with a fantastic drop-down window, mouse-driven interface and virtually every word processor format on the planet.

For those who insist LANs are the way to connect, this book does not fall short. INCLUDED in the diskettes are LANtastic's Z Lan - a software program that let's you build a workable LAN via serial port, parallel port, or virtually any LAN card. It also includes LANtastic Z Net Manager, a very useful utility for dealing with a LAN.

Between these three name products, the Dvorak book provides nearly \$400 worth of software in the very latest versions and would gain a recommendation on that alone. But the truth is, as usual we were wowed by something else entirely. The programs also include a wealth of tiny, obscure, and in some cases whimsical utilities, all married together with the best menu program we've ever seen. The heart of the awe is a program written by Keith Graham they call GMENU. GMENU is all assembly language and lets you create menus on your computer for application programs quite easily. It's barely 13K in size and like most assembly language programs, makes the screen pop and sizzle when you snap a key. All the included programs come on the menu, and all the documentation is accessed via another menu that uses a version of Vern Bueg's excellent LIST utility to let you browse the docs with ease.

Some of the lesser utilities are the most delightful. A screen blanker that rotates a beam around your screen erasing what's on it and paints a scene remarkably like the colored stars passing the view screen on the starship Enterprise. Even better, when you press a key to recall the work screen, it slides in from both sides in an impressive graphic display. An entirely whimsical LAVALAMP program performs an on-screen kaleidoscope - but like nothing you've ever seen. It shows off VGA graphics capability colorfully and dramatically. A "boss" key allows you to popup the most realistic looking fake spreadsheet screen we've seen when the boss pops into your cubicle - you can even enter data in the cells. A version of CSHOW - a viewer for Graphics Interchange Format (CompuServe's .GIF format) allows you to display GIF images.

The author of most of this light weight magic is Keith P. Graham. Keith writes small, tight utilities in assembly language and they are impressive. Among his other titles are OPTIK, a graphics package, and TXT2COM, a utility to turn any text file into a self displaying .COM program. Graham is also the

host of *Inside Your Personal Computer*, a technology show on Continental Cablevision. He actually works for Lockheed Corporation and has never received his due as a shareware author although he's written well over a hundred delightful utilities. He does operate a support BBS at (914)623-0039 from his home in Nyack, New York.

Dvorak's Guide to PC Connectivity is interesting because it addresses the real connectivity issues individuals grapple with on a daily basis. It's eclectic collection of software and varied approach to common problems make this one of the most useful books to be published this year. Osborne McGraw-Hill turned it down and Bantaam-Doubleday-Dell is publishing it and we would project Osborne will not be happy over this state of affairs before it's all over. The book is projected at 950 pages with availability at the end of October - \$49.95 is what we were told. Bantaam, 666 5th Ave., New York, NY 10103; (800)223-6834.

NEW COMMUNICATIONS PACKAGE IN WORKS FOR PCBOARD - PCBCOMM

Clark Development, developers of the popular PCBoard BBS software, is developing a new companion product for callers titled PCBComm.

PCBComm, which went into alpha testing on August 30, will essentially act as a terminal program with a 100 entry dialing directory that can be used to call any BBS. But when coupled with a PCBoard BBS running version 14.5a or later, the program interacts with PCBoard software to make the online session much more automatic. The program offers a windowed interface with mouse support allowing callers to pick items off a menu. The program then transfers the necessary commands to the PCBoard system to make it happen. All features of PCBoard are available through this new front end program. In this respect, it provides PCBoard BBS systems a user interface program much after the fashion of CompuServe's CIM or GENIE's Alladin.

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Jack Shearer, Baton Rouge, LA — "I called because of your price, but it was the games that hooked me!"

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ALABAMA AUBURN 205/821 5351 BIRMINGHAM 205/942 9301 BIRMINGHAM 205/837 4050 MOBILE 205/660 0522 MONTGOMERY 205/269 0085 TUSCALOOSA 205/752 6968	ALASKA ANCHORAGE 907/274 0260	ARKANSAS FAYETTEVILLE 501/442 4454 FORT SMITH 501/785 5544 LITTLE ROCK 501/372 0748	ARIZONA GLENDALE 602/937 0596 PHOENIX 602/891 6670 TUCSON 602/571 0275	CALIFORNIA ANAHEIM 714/635 6473 BAKERSFIELD 805/321 0112 CANOGA PARK 818/999 9068 EL MONTE 818/444 1173 ESCONDIDO 619/747 5803 FRESNO 209/233 1291 INGLEWOOD 213/337 1187 IRVINE 714/476 9376 LANCASTER 855/723 6729 LONG BEACH 213/428 9140 LOS ANGELES 213/480 0734 MARYSVILLE 916/742 4114 MODESTO 209/576 2451 MONTEREY 408/899 8846 OAKLAND 415/268 3782 Oxnard 805/486 8699 PASADENA 818/734 4801 PLEASANTON 916/622 1224 REDDING 916/244 0920 SACRAMENTO 916/362 4103 SAN BERNARDINO 914/881 3285 SAN DIEGO 619/573 0224 SAN FRANCISCO 415/986 4292 SAN JOSE 408/866 5784 SAN JUAN CAPISPO 805/544 1979 SAN MATEO 415/377 1985 SANTA BARBARA 805/966 7868 SANTA MARIA 805/928 8857 SANTA MONICA 213/458 6598 SANTA ROSA 209/579 2642 STOCKTON 209/944 5947 SUNNYSIDE 408/748 1361 VALLEJO 707/443 3592 VAN NUYS 818/376 1004 WALNUT CREEK 415/256 8050	COLORADO COLORADO SPRGS 719/380 0022 DENVER 303/741 5612 FORT COLLINS 303/484 3978 GRAND JUNCTION 303/243 2870 PUEBLO 719/545 3411	CONNECTICUT BRIDGEPORT 203/579 1122 DANBURY 203/748 2648 GREENWICH 203/629 2070 HARTFORD 203/659 6636 NEW HAVEN 203/234 2000 NEW LONDON 203/442 7245 NORWALK 203/853 0179 WILLMANTIC 203/456 4143	DELAWARE WILMINGTON 302/454 7834	DIST. OF COLUMBIA WASHINGTON 301/369 3482	FLORIDA Boca Raton 407/488 1788 CLEARWATER 813/461 9928 DAYTONA BEACH 404/258 7007 FORT LAUDERDALE 305/753 6571 FORT MYERS 813/337 5401 GAINESVILLE 904/374 8730 JACKSONVILLE 904/355 6102 LAKELAND 813/686 7155 MELBOURNE 407/637 6090 MIAMI 305/558 9124 MIAMI 312/261 7227 OCALA 904/732 5581 ORLANDO 407/298 8201	FENSAOLA FORT CHARLOTTE 904/476 7215 SARASOTA 813/743 4602 TALLAHASSEE 813/365 7311 TAMPA 904/386 1828 WEST PALM BEACH 407/833 0382	GEORGIA ALBANY 912/439 1918 ATHENS 404/548 6395 ATLANTA 404/396 1167 AUGUSTA 404/724 9844 COLUMBUS 404/324 6882 MACON 912/781 6132 SAVANNAH 912/966 5775	HAWAII HONOLULU 808/839 7234	IDaho BOISE 208/336 8540 LEWISTON 208/746 6946	ILLINOIS AURORA 708/820 2005 BLOOMINGTON 309/662 8045 CHAMPAIGN 217/398 1712 CHICAGO 217/464 0555 DECATUR 815/758 2642 DES PLAINES 708/825 5070 JOLIET 815/722 8517 MOLINE 319/322 4949 PEORIA 309/674 9101 ROCKFORD 815/962 5433 SPRINGFIELD 217/522 1549	INDIANA BLOOMINGTON 812/330 0005 FORT WAYNE 219/484 3963 GARY 219/736 2708 INDIANAPOLIS 317/266 0962 LAFAYETTE 317/452 4744 LOUISVILLE 219/742 8485 MUNCIE 317/289 0389 SOUTH BEND 219/234 9938 TERRE HAUTE 812/234 2484	IOWA AMES 515/233 3460 CEDAR RAPIDS 319/363 6965 DES MOINES 515/243 2803 DUBUQUE 319/556 8702 IOWA CITY 319/354 1033 SIoux CITY 712/252 0206 WATERLOO 719/232 4776	KANSAS LAWRENCE 913/749 5901 MANHATTAN 913/539 8118 TOPEKA 913/233 2884 WICHITA 316/265 0727	KENTUCKY LEXINGTON 606/269 3802 LOUISVILLE 502/361 0896	LOUISIANA ALEXANDRIA 318/473 4107 BATON ROUGE 504/383 9634 LAFAYETTE 318/235 8785 LAKE CHARLES 318/436 9419 MONROE 318/325 6215 NEW ORLEANS 504/241 7260 SHREVEPORT 318/221 5124	MASSACHUSETTS ANDOVER 508/686 8199 BOSTON 617/690 4776 BOSTON CENTER 617/542 2960 BROCKTON 508/941 0110 FOXBORO 508/543 1535 FRAMINGHAM 508/820 9241 LOWELL 508/452 1607 NEW BEDFORD 508/990 1007 NORTHAMPTON 413/586 8666 SPRINGFIELD 413/739 3805 WOODS HOLE 508/420 0973 WORCESTER 508/797 3558	MAINE BANGOR 207/941 6844 LEWISTON 207/783 1353 PORTLAND 207/773 9846	MARYLAND ANNAPOLIS 301/626 1451	BALTIMORE CUMBERLAND 301/281 9222 PORTSMOUTH 301/722 4005	MICHIGAN ANN ARBOR 313/930 0456 BATTLE CREEK 616/963 6881 DETROIT 313/964 0610 FUNK 313/695 6616 GRAND RAPIDS 616/361 9363 JACKSON 517/782 0523 KALAMAZOO 616/385 2032 LANSING 517/487 0833 MIDLAND 517/832 2511 MT PLEASANT 517/772 9447 MUSKOGON 616/739 2348 SOUTHFIELD 313/350 9582 TRAVERSE CITY 616/929 9873	MINNESOTA DULUTH 218/723 8005 MINNEAPOLIS 612/858 3539 ROCHESTER 507/285 1686 ST CLOUD 612/233 4248	MISSOURI COLUMBIA 314/449 0729 JEFFERSON CITY 314/634 4025 KANSAS CITY 816/842 3009	NASHUA PORTSMOUTH 603/882 4588 603/433 8086	NEW JERSEY ATLANTIC CITY 609/645 6866 CHERRY HILL 609/273 1411 EDISON 908/417 9445 MORRISTOWN 201/366 1560 PHILIPSBURG 908/454 3459 SHREWSBURY 908/774 1642 TRENTON 609/882 8835 WEST ORANGE 201/669 8011	NEW MEXICO ALBUQUERQUE 505/255 0108 LAS CRUCES 505/525 3311 SANTA FE 505/662 5546	NEVADA LAS VEGAS 702/873 0434 RENO 702/322 1200	NEW YORK ALBANY 518/383 4435 BINGHAMTON 607/724 2986 BUFFALO 716/838 1475 ITHACA 607/277 1591 MELVILLE 516/753 2030	PENNSYLVANIA BETHLEHEM 215/974 9400 DANVILLE 717/275 0151 ERIE 814/454 4863 HARRISBURG 717/540 0770 KING OF PRUSSIA 215/692 2796 LANCASTER 717/293 0882 PHILADELPHIA 215/854 8121 PITTSBURGH 412/341 7506 READING 215/374 2271 SCRANTON 717/969 9760 STATE COLLEGE 814/234 2820 WILKES BARRE 717/823 1640 WILLIAMSPORT 717/322 4390 YORK 717/843 5141	RHODE ISLAND KINGSTON 401/294 2415 PROVIDENCE 401/732 6460	SOUTH CAROLINA CHARLESTON 803/797 8405 CLEMSON 803/653 8702 COLUMBIA 803/252 6806 GREENVILLE 803/242 3474 SPARTANBURG 803/583 1412	SOUTH DAKOTA RAPID CITY 605/342 0680 SIOUX FALLS 605/338 6088	TENNESSEE CHATTANOOGA 615/622 7823 JOHNSON CITY 615/282 1104 KNOXVILLE 615/690 1937 MEMPHIS 901/452 7111 NASHVILLE 615/360 2100 OAK RIDGE 615/483 7875	TEXAS AMARILLO 806/358 6277 AUSTIN 214/480 9947 BEAUMONT 409/832 0180 BRYAN 409/822 5887 CORPUS CHRISTI 512/888 8294 DALLAS 214/788 4651 EL PASO 915/778 8196 FORT WORTH 817/548 0171 GALVESTON 409/938 0914 HOUSTON 713/541 9282 LARDON 512/725 9322 LONGVIEW 903/753 1929 LUBBOCK 806/744 6291 MIDLAND 915/697 0442 SAN ANGELO 915/655 3608 SAN ANTONIO 512/271 0752	SAN MARCOS TEMPLE 817/770 0560 TYLER 903/592 6544 WACO 817/776 9533	UTAH LOGAN 801/753 7865 PROVO 801/375 6005 SALT LAKE CITY 801/484 5011	VERMONT BURLINGTON 802/658 2410 RUTLAND 802/775 5999 WHITE RIVER 603/643 6517	VIRGINIA ALEXANDRIA 703/845 0405 BLACKSBURG 703/552 3110 CHARLOTTESVILLE 804/977 8818 GALAX 703/236 2930 HAMPTON 804/838 7119 HARRISONBURG 703/433 4868 LYNCHBURG 804/847 6558 NORFOLK 804/623 1480 RICHMOND 804/965 0871 ROANOKE 703/389 5084	WASHINGTON BELLINGHAM 206/733 3421 CHENAY 509/235 6268 OLYMPIA 206/337 7499 PULLMAN 509/334 4154 SEATTLE 206/455 9560 SPOKANE 509/493 7128 TACOMA 206/572 4125	WISCONSIN APPLETON 414/734 7188 EAU CLAIRE 715/834 2576 GREEN BAY 414/435 3523 MADISON 608/257 4955 MILWAUKEE 414/821 1643 RACINE 414/632 9188 SHEBOYGAN 414/452 7083 WAUSAU 715/842 5069	WEST VIRGINIA CHARLESTON 304/345 7614 HUNTINGTON 304/529 9324 MORGANTOWN 304/296 0365 PARKERSBURG 304/485 3465 WHEELING 304/233 4096	WYOMING CASPER 307/235 8611 CHEYENNE 307/635 051 LARAMIE 307/745 8767
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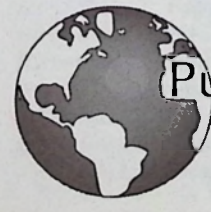
Call after 6:00pm Pacific Time
and tour PDN for FREE

LOGON PROCEDURE

1. Set your software for 8 Bits, No Parity, 1 Stop Bit.
2. Dial the number nearest you.
3. At the "CONNECT" message slowly type four periods <RETURN>
4. At the "SIGN ON" prompt type: PBLICNET <RETURN>

9600 BAUD LOCATIONS

PHOENIX, AZ 602/893 6648	ST LOUIS, MO 314/863 5120
INGLEWOOD, CA 213/337 1833	WEST ORANGE, NJ 201/669 5769
SAN FRANCISCO, CA 415/986 5492	NEW YORK, NY 212/765 0860
SAN JOSE, CA 408/374 0311	SYRACUSE, NY 315/422 1610
DENVER, CO 303/770 1820	WHITE PLAINS, NY 914/741 2918
WASHINGTON, DC 301/369 0008	CINCINNATI, OH 513/761 7839
MIAMI, FL 305/827 1010	CLEVELAND, OH 216/529 9606
ATLANTA, GA 404/671 1282	OKLAHOMA CITY, OK 405/324 6006
CHICAGO, IL 312/464 0901	PHILADELPHIA, PA 215/557 4836
BOSTON, MA 617/890 3140	PITTSBURGH, PA 412/341 7608
BOSTON CENTER, MA 617/482 8077	DALLAS, TX 214/788 4778
SOUTHFIELD, MI 313/352 7277	HOUSTON, TX 713/981 4116
MINNEAPOLIS, MN 612/858 4167	SEATTLE, WA 206/462 1262
KANSAS CITY, MO 816/221 4978	MILWAUKEE, WI 414/821 0756



Public Data
Network

Online nationwide
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The program will run under Windows 3.0 or DOS, and should provide a much slicker, smoother interface to a PCBoard BBS. Callers will be able to tag files with a mouse and download in a batch. Navigating message conferences will be much easier. The company does not plan on any offline mail functions. Pricing and release date have not been set. The company showed a preliminary copy PCBoardComm at the FidoCon91 held in Denver in August. Clark Development Co., Inc., 3950 South 700 East, Suite 303, Murray, Utah 84107; (801)261-1686 voice; (801)261-8987 fax; (801)261-8976 BBS.

10,000 SHAREWARE PROGRAMS ON CD-ROM - \$159

Night Owl Computer Service is making quite a splash with a shareware CD-ROM collection many BBS operators are snapping up. The CD contains 10,700 IBM files occupying 507 MB of space and the files appear to be very current. The files are setup for use with PCBoard systems and the directory text files are already included for 35 subdirectories. Best of all, you can sign up for four quarterly updates at a significant discount. Night Owl operates a PCBoard BBS at 716-881-5688 using the US Robotics HST Dual Standard modem. The CD-ROM is priced at \$159 for end users and \$120 for BBS system operators. Sysop Richard Graham has the CD-ROMs made himself. Night Owl Computer Service, 219 Poto-mac Ave., Buffalo, NY 14213; 716-886-2726.

A TALE OF TWO CITIES

Impressions of FIDOCON91 and the VIA Convention

by Stephen Laliberte

Over this past summer I had the good fortune to attend two of our industry's most important conventions. In June, attended the Videotext Industry Association (VIA) convention in Washington, DC and in August I went to FidoCon 91 in Denver.

The VIA convention was a polished affair. Before my presentation, I was required to submit a resume, a handout, and prepare slides. All the attendees received a 100 page booklet with all the presentation handouts, notes and speaker's pictures. All the titans were there either speaking, demonstrating or making deals over dinner. CompuServe, Prodigy, America On-Line, Delphi, US Videotel, all the Bell gateways and hundreds of hopeful participants. The average title on the attendees list was at least two or three lines long.

There was a new sense of reality at this year's convention. Attendance was way down. Competition was way up. The big boys have been spending lots of money on ad campaigns and boosting their circulations up and up with Prodigy now boasting over one million passwords and CIS over 800,000. It was clear that there was rapid growth in the industry and everyone seemed to agree that this industry had arrived.

There was a great deal of focus on technology. The main themes centered on cheaper higher band connectivity and better user interfaces. The focus was entirely on centralized computing delivered over massive packet networks. Everyone was concerned about getting the masses on-line by offering

better user interfaces. Prodigy's apparent success is fanning interest in NAPLPS.

Steve Case, President of Quantum, (America On-Line) reported that of the top five on-line services only Prodigy was losing money. America On-Line reported second quarter sales of \$4 million with profits over \$1 million. CompuServe now reports annual revenues of \$98 million up 22% over last year (IDP Aug. 16, 1991). There is no mention of the profit rate. It was clear that a host of programmers had switched to gray suits and were engaging in the task of becoming businessmen and building an industry.

FidoCon91 was everything that the VIA was not. Attendance was way up - the largest Con ever. More people attended FidoCon than attended the VIA. There was excitement and enthusiasm everywhere. Instead of sipping scotch for \$5.00 a glass, I enjoyed a Jolt cola from an ice filled bath tub at the eSoft hospitality room. I shed my pinstriped suit and wing-tip shoes and donned my jeans, T shirt and Nikes. The Con was disorganized, frantic and guarded by security men in full Scottish guard attire complete with kilt and sword.

The convention more resembled a revival meeting than a Con. The cat has gotten out of the bag - some people are making a lot of money running a local BBS. In his opening remarks, Phil Becker, President of eSoft, reported a married couple running a 32 line BBS with profits of \$1 million per year. My guess is that the cumulative profits from commercial BBSs may in fact exceed those of the big boys.

Even with this new realization that had many sysops thinking about going commercial, the bulk of the convention centered on technology, specifically the BBS software and how modems work. It was great fun to meet all the gurus who built the likes of PC Board, Major BBS, Quick BBS and TBBS. They all had very much in common, they caught the BBS bug and wanted to make it better.

'WILDCAT! 3.0...

Right From The Start

Information on your most important system-wide statistics, including users, files, messages, and node ID number. System toggles are also displayed on screen.

Quick statistics can be reset from the idle screen here, or from any of the 65,000 events available 24 hours a day. A daily reset keeps the sysop informed.

Local activity buttons for login as sysop or user, drive space display, node status for all lines with caller activity information, and access to a DOS shell and menu facility for running other programs. Console activity can be password locked.

More Information including total calls, main drive space, how long since the last call and the next pending event.

Wildcat! v3.00		WILDCAT! HQ BBS		Reg. No.: 86-0001	
Sysop login		Database		System	
Local login		Users = 3,911		Total Calls = 266,187	
Drive Table		Files = 9,584		Drive F = 325,616,384	
Node Status		Msgs = 8,125		Minutes Idle = 7	
Reset Stats		Node = 22		Next Event = Fri 12:00a/Flex	
DOS Shell					
Exit					
				Last caller	
				Scott Hunter at 7:11p on 05/22/91	
				Status	
				Waiting for calls at 8:37a	
Quick Stats since 05/22/91 12:39a				Sysop Toggles	
Calls = 190		Downloads = 423		F3-Printer	OFF
Messages = 133		Uploads = 13		F4-Page	ON
				F5-Bell	OFF
				F2-Kybd	ON

Wildcat! BBS (c) 1987,91 Mustang Software, Inc. Bakersfield, CA (805-395-0223)

User Maintenance

Multiple access. This screen can be accessed from the sysop menu (naturally), but also after reading every message to enable editing users sending, receiving, or being discussed in a message. Exiting user maintenance immediately returns to the message you left.

Full demographic information including a second screen with an alias name and user-specific conference and file area access overrides.

Control by conference (1,000 of them) for co-sysop status, user title, log-on time and more.

Match by security or expiration date to view all who meet your criteria, then [W]rite them a message explaining the changes with immediate return to the user record.

```
Record number : 1463                                     Match: NONE
[ 1] Name      : RICK HEMING                               [17] Sec level : STAFF
[ 2] From      : Mustang Software, Inc.                    [18] Exp date  : 01/01/97
[ 3] Help level: Novice                                     [19] User since: 04/01/87
[ 4] Password  : PRIVATE                                   [20] D.O.B.    : 05/10/50
[ 5] Phone [V] : 805-395-0223                               [21] Memo date : 11/11/58
[ 6] Phone [D] :                                           [22] # Calls   : 1841
[ 7] Last call : 05/22/91 8:31a                             [23] Page avail: NO
[ 8] Comment 1 : Hinson                                     [24] Color on  : YES
[ 9] Comment 2 :                                           [25] E-Prompt  : YES
[10] Company   : Mustang Software, Inc.                    [26] Hot keys  : YES
[11] Address 1 : P.O. Box 2264                             [27] File disp : Double line
[12] Address 2 : 915 - 17th Street                         [28] Editor    : Full Screen
[13] City      : Bakersfield                               [29] Protocol  : No default
[14] State     : CA                                         [30] N-mail bal: 3326
[15] Zip       : 93303                                       [31] Acct bal  : 32767
[16] Country   : USA
Edit Command [1..32], [F]ind, [S]earch, [C]onference, [N]ext, [J]ump, [A]dd,
[M]atch/Set, [P]rev., [H]elp, [D]elete, [E]xtra Info, [W]rite, [Q]uit?
```

File Maintenance

Database security Only the files you specify in the B-Tree indexed database can be downloaded, and you can catalogue up to 2 billion files from 1,000 file areas and 4,000 subdirectories.

6 Keywords provide fast indexed file searches. They can be entered by the caller, or generated from the description.

Description text starts with a brief 65 character field and allows an extended description up to 15 lines of 80 characters.

Name of uploader, # of downloads, date of last download, stored on CD ROM or off-line are all tracked for each file.

```
Record number : 1425                                     Match: AREA 25
[ 1] File name  : CONV.ZIP                                  [15] Times Dnld'd : 748
[ 2] Date      : 05/10/91 12:00a                             [16] Cost         : 0
[ 3] Last access: 05/17/91 12:21a                             [17] On CD-ROM    : NO
[ 4] Size      : 23,612                                       [18] No charge   : NO
[ 5] Uploaded by: HUGH MITCHELL                             [19] Never OWrite : NO
[ 6] Password   : update                                     [20] Password req : NO
[ 7] Key 1      : PCBOARD                                    [21] Never delete : NO
[ 8] Key 2      : FILES.BBS                                 [22] U/L in progress: NO
[ 9] Key 3      : CONVERT                                    [23] Stored offline: NO
[10] Key 4      : PCB                                         [24] Long Desc.   : YES
[11] Key 5      : List                                         [25] Failed Scan  : NO
[12] Key 6      : [13] Area assigned: 25 - Upgrades
[14] Short desc : Converts PCBoard's files.bbs to wc2.55 for upgrade
Edit Command [1..24], [F]ind, [S]earch, Fr[E]shen, [P]rev, [A]dd, [U]ser
[M]atch/Set, [R]ead, [N]ext, [D]elete, [J]ump, [V]iew, [X]fer, [Q]uit?
```

Mustang

Software, Inc.

P.O. Box 2264 Bakersfield, CA 93303

For Orders Only

(800) 247-6385

For Office/Inquiries (805) 395-0223

For a BBS preview (805) 395-0650

It's a killer. WILDCAT! 3.0 has been completely re-written with and ready to make your BBS the best around. While it's impossible feature-for-feature, no other BBS even comes close. Get your hands

a New Breed of Cat."

The Big Picture

Message quoting is available either automatically or on a line-by line basis on request.

Full screen editor The visual editor includes support for cursor commands, full doorway control including Home, End, PgUp, PgDn, etc., and WordStar commands.

Net & Echomail messages can be tossed directly in and out of any WILDCAT! conference with Binkleyterm, D'Bridge or Front Door.

File attachments to a message result in an additional command line option to [D]ownload the attachment, with immediate return to the message after completion.

VGA/EGA resolution for the sysop allows the local screen to use enhanced display modes to view a complete user record on screen with the active user display above.

Marking Files

File listings can be formatted as single line, double line or full file information display. Get full [I]nformation on any file including the extended 15 line description, [V]iew a compressed file, [D]ownload or [M]ark files after each screen display.

Mark files by numbers such as 1-5, 7, 9 rather than typing the cryptic filenames. Continue to view the listing until you have marked all desired files, then request a download and preview your marked list.

File Search based on name, keyword, uploader or description text also allows file marking of found files for later download.

File Transfer

Batch downloads are supported using internal Ymodem, Ymodem-G, Zmodem, and Kermit, and a special batch emulation for sending batches of previously marked files using Xmodem, Xmodem-CRC and 1K-Xmodem. External protocols can be added easily. Ymodem-G reaches 1750+cps!

Batch uploads using all internal and external protocols is fully supported with optional virus checking of each file.

Full status is displayed on screen including batch and file percentage scroll bars along with other statistics.

99 files can be uploaded or downloaded per request using any internal transfer protocol.



Available at
Software Etc stores nationwide!

```
From : SCOTT HUNTER (MSI Staff)      Number : 818 of 911
To : GWEN BARNES                    Date : 05/22/91 9:00a
Subject : Quoting/offline            Reference : 836
Read : 05/15/91 11:47a (REPLIES)    Private : YES
Conf : 015 - WILDCAT! 3.0 Discussion
```

-> Looks like the full screen editor is fully implemented. I do have a few questions...

-> Am I forced to request quoted lines when I want to include them?

No, you can set Auto-quote in your user record to place the entire text of the original message into your reply, then you can simply delete the unwanted and unformatted lines using Ctrl-Y.

Doorway mode is fully supported as well.

-> Can I use any kind of off-line reader with WILDCAT! 3.0?

Sure, as long as it's .QWK compatible. The main mail door for WILDCAT! is Tomcat!, and it creates .QWK packets readable by your choice of mail readers that interpret that format.

If you have any more questions just ask.

```
Read mode 838 [1-911] [E]dit, [F]orward, [H]elp, [K]ill, [N]onstop,
[P]rint, [Q]uit, [R]eply, [S]ysop, [ENTER] = next?
```

```
Name : RICK NEHME (V.P. Oper.)      Since: 04/01/87
From : Mustang Software, Inc.        Exp : 01/01/97
Phone : 805-393-0223                 Wmo : 11/11/92
Alias : RIVER RUNNER                 DOB : 05/10/50
Sec : STAFF                          Prot: No default
Edit : Full Screen Help, Novice     Files: 05/28/91
CmpType: (8) - 386 Class              Cnat Page: NO
Company : Mustang Software, Inc.      Hot Key : YES
Address 1 : P.O. Box 2244             Locked Out: NO
Address 2 : 915 - 17th St.            Color Menu: YES
City/ST/Zip : Bakersfield, CA 93303 USA Sysop Flag: YES
Comment : Winson                     Ignore Time: YES
                                         Acct Bal: 3 180.05
                                         NetM Bal: 3 24.00
Node : 22 Baud: 19200                 Conf: WILDCAT! 3.0 Discussion
                                         Time: 890
```

```
[17] MOGMAIL3.ZIP Sample Scripts for Wildcat automated mail transfer - Qmodem
[18] PCPPRO2.ZIP Procomm Plus 2.0 PC-Pursuit ASP Program
[19] PRCH243.ZIP Procomm 2.4.3 all files included in zip
[20] CONV.ZIP converts PCBoard's files .bbs to wc2.55 for upgrade to 3.0
[21] WILDMAIL1.ZIP Update to mail scanner/tosser/packer for WC3 & DB, FD & Bink
[22] TOMCAT3.ZIP TOMCAT! .QWK Mail Door for WILDCAT! 3.0, use with reader
Mark File Command [#, #-#], [A]ll, [E]dit/View, [H]elp: ? E
```

Item	File Name	File Size	D/L Time
[1]	BBSVALET.ZIP	9,154	00:00:06
[2]	BEHCONV.ZIP	14,833	00:00:09
[3]	BI4BOYAN.ZIP	3,063	00:00:02
[4]	BOYAN401.ZIP	148,328	00:01:38
[5]	BOYAN402.ZIP	110,989	00:01:13
[6]	CATCAL11.ZIP	25,591	00:00:17
[7]	CS.ZIP	2,560	00:00:01
Total Files Queued		D/L Bytes	Est Time
7		314,524	00:03:26

Edit command: [R]emove item, [C]lear List, [A]dd file, [Q]uit edit? [Q]

```
[ 7] DSZ0228.ZIP      87,017  00:07:33
Download Active
```

```
What you
[D]ownlo
[E]dit
[A]dd
[G]oodby
[S]TOP
Command?
Please =
[2] Zmod
[G] Ymod
Select (
Ready to
Sending file(s), <CTRL> X to abort...
```

Protocol	File time left
Zmodem [Crc32]	00:04:19
Throughput: 1650 CPS 175%	Batch time left: 00:13:11
AutoLogOff: YES	Elapsed time : 00:04:37

File	Batch	Status
COMMO4.ZIP	41%	Ok
CS.ZIP	29%	Ok

Sending	File size
[COMMO4.ZIP]	102962
# 4 of 7 [CS.ZIP]	41984
# 5 of 7 [DIAL42.ZIP]	60376
# 6 of 7 [DSZ-ANSX.ZIP]	1024
# 7 of 7 [DSZ0228.ZIP]	101
	Blocks left: 60
	Block errors: 0
	File errors: 0

Press <CTRL> PgDn to abort transfer

over 75 new features and speed to spare. This cat is out of the bag to tell you everything new about WILDCAT! 3.0, we can say that s on the world's fastest growing BBS system — that just got better.



FALKEN 6.0 System Profile

System: The Doctor's
Office BBS
Sysop: "Doc"
Location: Fairfax, Virginia
Phone No: 703-425-3644
No./Lines: 16

Baud Rate: 300/1200/2400/9600
Protocol: 8-bits, no parity
PCPursuit: DCWAS
Tymnet: 0476
Hardware: 386 - 25MHz PC
Software: *Falken 6.0*

"A couple years ago I offered to try *Falken* BBS Software. To my surprise it was like no other BBS software that I have ever run and I have been a Sysop for over 11 years now.

"Why *Falken* Software? Because it had alot of features that I already had running a single line system and Teleconferencing. Yes! live chat among the users online not just with the sysop. Also, it has Doors, Message Bases, G-files, private E-mail and much, much more and it gets better all the time.

"There is real support at the other end of the line when I call, the author no less! and he listens! I can go on and on about *Falken* software, but I want to say that I have looked into other BBS software. The cost of the software was prohibitive to me let alone the hardware to run it. With *Falken*, I can run anything from a one line system to a 16 line system!!

"The Doctor's Office BBS started out with *Falken* on 4 lines. Within months, the popularity of the system and the software was so great we immediately went to 8 lines and we did that running on an 8088 system! Well less than 8 months later we had to go to 16 lines!!

"And through all the changes and questions the support was still there. A voice call and the answer was at the other end. At times I called the *Falken* BBS Support System (also run by the author, Herb Rose) and when I asked a question in e-mail or message base the next day it was answered... The continuing changes and updates are also available for downloading and if they are major changes that the sysops want made then when it is ready and tested a new set of disks are usually mailed!!

"Let me say that I am very impressed with the software and there is also available now other features like attaching files to e-mail. One more interesting and fun item about *Falken*: the ability to link to other *Falken* systems and have all their users in teleconference at the same time and talk to each other!! Do you charge for your system? If so, then it also has the ability to automatically keep the time your users spend on your system!

"You want more? How about access levels, downloads/uploads, external protocols including Zmodem, Ymodem and Xmodem... Like I said, I can go on and on... The Doctor's Office is available for you to look at if you wish... Give us a call and see what the system looks like...

"So, if you are looking for BBS software and don't want all the hassles of having more than one computer running all your lines, I suggest *Falken*!!"

FALKEN 6.0 Prices

2-Line	\$99	8-Line	\$299
4-Line	\$199	16-Line	\$399

FALKEN 6.0 Features

- Supports up to 16 lines plus a local login channel.
- Compatible with the FOSSIL standard for interfacing the serial ports.
- Built-in multitasking environment breaks the 640K barrier. *Falken* uses expanded memory so that it will even operate on XT-class PCs.
- Doors which allow external applications to be developed.
- Link teleconferences with other *Falken* systems to create SUPER teleconferences.
- Sysops can dial-out while *Falken* is on-line supporting other users.
- Fully configurable menus to create the desired 'look-and-feel' of the system.
- Customize your menus and screens for both ANSI and ASCII users.
- DOS Shell, written specifically to be used with FOSSIL drivers, can be used either locally or remotely. It can be used to copy, delete, rename, type, dump, list, or locate files.
- Utilities included to automate maintenance, billing, monitoring and other functions.
- E-Mail with distribution lists.
- Attach File to E-Mail to be downloaded when the letter is read by the recipient.
- Message Base uses threaded responses.
- Full Screen Editor uses ANSI codes to manipulate text on the screen.
- Global Commands include: who, user, userlist, time, logoff, send, kill, .extend (allows a sysop to give a user 10 extra minutes on their session).
- The Ymodem, Zmodem, and Xmodem protocols use the FOSSIL interface to the I/O ports. Source code for all protocols is available.

Test Drive FALKEN

The 2-line version of *Falken 5.9* is available as Shareware. To download *Falken* or to see the system in action, call our BBS at 703-803-8000 (USR/HST) or 703-803-8001 (Compucon), local access on PCPusuit node DCWAS or Tymnet node 0476.



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Having experienced these two conventions, I was amazed that these two worlds seem like two cities that are very much alike but have little knowledge of one another. Both produce very similar products; they offer electronic mail, boards-forums-conferences-roundtables, and file libraries. Both seek to connect the world yet neither one will even admit that the other exists. The big boys do not think the BBS community will ever be a threat because they are so disorganized. The BBS community knows the big boys are out to lunch and their pricey centralized technology will never survive.

My sense is that these two cities will eventually meet in a war. It will be a war for the hearts and minds of subscribers. Both cities believe that the implements of that war will be technology and they are both investing in new and better ways to deliver their services.

I am excited and encouraged about the growth and the competition. Yes, we do have an industry here. I am concerned, maybe because most of us are programmers at heart, that we still do not fully understand what it is we are trying to do. In all the presentations from both conventions there was not one presentation on what the callers really want, why they use the services and what we can do to meet their need for information, files and community.

Coming from the publishing business, I can see many parallels in the development of the magazine and radio stations and LIFE magazine in the 40s. Others are focusing on tight niches or serve regions like the local radio affiliates and magazines like SAIL. We have large world-wide operations and local outfits with cheap transmitters.

Yes, it is the best of times and the worst of times. I can't wait to see the next chapters.

[Stephen Laliberte is the Director of the BYTE Information Exchange, an on-line service published by BYTE Magazine - Editor]

THE BBS AS A BUSINESS

WHAT TO DO WHEN THE BANK SAYS NO - HOW TO GET A MC/VISA MERCHANT ACCOUNT

by Jack Rickard

Last month we covered some of the elements involved in running a BBS as a sideline business for profit. You may recall that one of the most crucial elements discussed in inducing callers to support a small online service was convenience. Essentially, at this point in the game the majority of callers are willing to support "pay" BBS financially, as long as it doesn't require them to make a project of the process. And that inevitably brings us to the ability to accept subscriptions via credit card.

The two most common credit cards you will run into are Master Card and Visa. Master Card numbers are always 16 digits and always begin with the numeral 5. Visa numbers are either 13 or 16 digits and always begin with the numeral 4. Almost all merchant accounts accept either Master Card or Visa. Two other credit cards you may occasionally run into are DISCOVER (Sears), and American Express. In most cases, accepting these two cards involve additional charges and in the case of American Express, significantly higher discount and transaction fees. While there is some demand for American Express, a merchant account allowing just Master Card or Visa will accommodate 99% of your callers. For most operators, the additional coverage is not usually worth the additional fees. Pretend you're the Olympics.

Accepting credit cards doesn't come free. You almost always pay a discount fee - actually a cut of the action. The bank retains a percentage of the charges you run. This varies usually between 2.25 and 4.00%. If you use electronic ticket capture to automate the process,

you decrease the bank's processing tasks and they will usually charge you the low end of this range.

The best way to process merchant accounts is through your own bank of course. They issue you a business checking account, a merchant account to accept credit cards, and help you get set up. You will have to sign a merchant agreement. The last time I looked at ours, I believe it gave the bank the legal right to size our money, home, children, pets, and a pound of flesh from each adult in the household. There may have been something about the right to shake down our friends and neighborhood pets for contributions as well.

You will normally be classified either as a mail order merchant or electronic ticket capture merchant. In either case, you will be required to obtain an authorization code for each credit card charge you accept if you do not have a signed form from the subscriber authorizing the charge. In accepting online subscriptions, you normally will NOT have a legal signature with each order.

The usual way of obtaining an authorization code is to dial into the network with a touch-tone telephone. You key in the digits of the credit card number, the expiration date of the card, and the amount of purchase using the telephone keypad in response to an automated voice prompt. The voice then announces a numeric authorization code which you write on the form. This can actually be a bit tedious for one or two charges and if you process fifteen of them in a batch, it can be grueling. Worse, the result is a pile of batch tickets that must be taken to the bank and deposited much as you would checks.

The next level of automation is an electronic ticket capture device. We used a Verifone unit for a month or so. This is a small electronic terminal about the size of a shoe box with the card slot, a numeric keypad, and an RJ-11 connector that connected to the telephone line. It allows you to just swipe the card through a slot to read the credit card number and expiration date and a small keypad

CRS OPENS USA ACCESS!!

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- "Live" newsfeed from *UPI!*
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to enter the charge amount. Since you rarely actually have a physical card in the online world, you must also enter the credit card number and expiration date through the keypad.

The advantage to the Verifone is there is no voice prompt and the device would do all the dialing for you to clear the transaction - displaying the authorization code on a little LED readout. Further, at the end of the day you enter a special code to "close the batch" and the device dials in and signals the network that you're through for the day. Most importantly, the money is actually deposited in your business checking account - usually the next day. You don't have to go to the bank at all. But you still have to make out the charge slips by hand and keep them on file. The cost of a Verifone device is around \$200 and most banks will lease you one for around \$10 per month.

The Verifone device actually contains a 300 baud modem. It seems a little wasteful to pay \$200 for such a specialized modem if you already have a roomful of much more capable modems. Fortunately, in most cases you can also run a software program. American Digital makes one of the best of these in a product called Soft*Deposit. Essentially, you enter the same information through your PC into a database that can hold up to 999 transactions. Your PC and modem emulate the Verifone in many ways but there are numerous advantages. For one thing, you can import text files generated by your BBS with the information into the database. You can also print out reports listing all the transactions, the authorization codes, etc. to keep on file. Soft*Deposit is priced at \$289, but we understand from American Digital President Dave Carter that they will discount this to \$99.95 for Boardwatch readers. American Digital Inc., 8585 S.W. Fir Lane Terrace, Portland, OR 97223; (503)293-3853.

The final level of automation is of course the BBS itself. In theory, it should be possible for callers to enter their credit card number, expiration date, and the amount and have the BBS dial out to clear the

charges with the bank all automatically. We're not quite there yet and the situation is complicated by the fact that there are numerous BBS software packages, and also numerous online networks that clear the credit card charges. Essentially, you don't have many options on the latter. Whatever network your bank uses is the one you're more or less stuck with and there are a number of them in operation - each requiring different software. CDB Systems is currently developing a door program for use with Ultra BBS and PCBoard systems to do this and they have it working now with at least one network. They're pricing the door at \$195 and will customize to your particular network, if necessary, for \$100. You can see this in action on their Pinecliff BBS at (303)642-7463.

Automation can certainly make the process of clearing credit card charges easier, but the biggest problem facing many BBS operators is obtaining the merchant account and the ability to process credit card charges at all. With the increases in fraud, this is increasingly difficult as banks become more leery of mail order and electronic operations in general. While most operators can eventually obtain one, many really are shut out. An alternative is a service company that does this specifically for you - acting as a middleman between the banking community and their customers.

We've looked around quite a bit and were discouraged by most of these service operations. Many just aren't particularly trustworthy and most wanted a high (6%-8%) discount fee. But we did finally find one that we're pretty comfortable with. Peachtree Bancard operates a credit card charge clearing operation on a national basis and increasingly we're finding BBS operators, particularly in regions like California and New York where it's very tough to get merchant status, turning to this organization. It's large, stable, with a reasonable 3.5-4.0% discount fee. They do get you a little bit on the equipment rental, but clearly a service company has to make a profit on something and the equipment is actually pretty impressive.

According to Michael Liberatore, a Peachtree representative in the Pittsburgh area, the company welcomes BBS operators and he personally intends to develop this market a bit more fully.

Peachtree doesn't come free, but for operators looking for a solution, it's probably a pretty good one. The trick is that the company leases a ZON Jr. XL electronic ticket capture terminal to the client at \$59-\$69 monthly on a 48 month lease. At the end of the lease, you own the equipment. The equipment is actually pretty deluxe with a receipt printer and so on, but is relatively expensive. According to Liberatore, the equipment allows them to tie a client into their electronic network very quickly and they do deposit charges directly into the client's business checking account - usually within two days. By using a known equipment set, installation issues are largely eliminated. He also mentions that they may allow a software solution in the future because he is seeing a lot of computer users interested in their service. If they do, existing clients will be let out of their lease to take advantage of the new technique.

In addition to the monthly lease, Peachtree quotes a discount rate of 3.57%. While this is on the high end of regular bank merchant accounts, it is virtually free compared to the 6%-8% that many service companies charge. Again according to Liberatore, the application process typically takes about 2 1/2 weeks from the time a client calls until they are on site installing the equipment. There is a \$95 application fee plus two months of the lease in advance - refundable in the event the application is declined. When questioned on the percentage of applicants declined, Liberatore stated that essentially 99% of applicants are approved. "Realistically, you have to have some kind of fraud conviction or something like that to be declined. We've actually provided service to people with a bankruptcy record", said Liberatore. Contact Michael Liberatore, Peachtree Bancard, 681 Anderson Drive, 4th floor, Pittsburgh, PA 15220; 800-253-2987.

LAW ONLINE

NEW LIMITS ON DATABASE COPYRIGHT PROTECTION

by Lance Rose

How is a bulletin board system different from a telephone book? The way this question is answered will determine how much copyright protection is available for databases on BBS's, thanks to a recent decision by the U.S. Supreme Court.

USE OF BBS'S TO MAINTAIN DATABASES

BBS's have uses far beyond their original functions of transmitting messages and files. One of their major new uses is to act as repositories for various kinds of databases. Such use is increasing, as shown by the increased demand for database management capabilities in BBS software. Database capabilities can either be integrated in the software, or accessed

through a "door" in the BBS software to a popular stand-alone database management package.

The kinds of databases maintained in BBS's are as varied as the kinds of information found in the world. Demographic statistics, price lists, Usenet nodes, lists of suppliers of goods and services, and so on. The publisher of this very magazine runs a BBS, with extensive lists of phone numbers and other data regarding other BBS's around the country. Database uses of BBS's are bound to increase in the future, as BBS's are an ideal means for distributing information efficiently to geographically separated users.

The basic soundness of this approach is amply demonstrated by the large, established companies that offer access to an array of data sources, such as Dialog, Mead Data Central (who provide Lexis and Nexis), Maxwell On-Line, and Dow Jones. BBS's, being much smaller operations, would naturally fill a different niche, serving specialized hobbyists, technical interests, and commercial needs. For

instance, a BBS specializing in orchids could provide a listing of suppliers nationally, lists of the types of orchids available from different suppliers, keep records of incidence of diseases among orchids, a list of flower shows around the country featuring orchids, and so on. Such a database could be effectively maintained by a small, dedicated group of people, and made available to callers around the country on the BBS.

Derivative products are a natural outgrowth. A sysop can complement his database BBS with a print or electronic magazine distributed to users around the country, thus "decentralizing" small parts of his data. He could also transfer substantial chunks of data on-line or through disk, either for money, or free of charge for the sole purpose of maximizing dissemination of the data.

THE SUPREME COURT MONKEY WRENCH

A March 1991 Supreme Court copyright ruling will have a strong effect on the use of BBS's to main-

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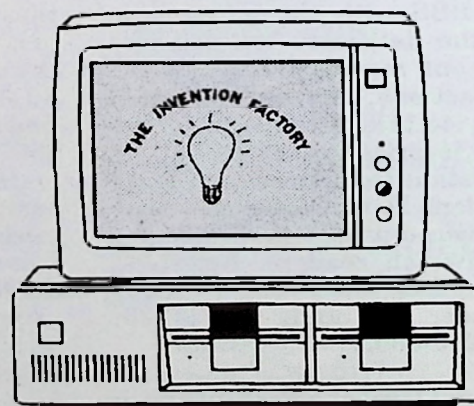
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tain databases. In *Feist Publications v. Rural Telephone Service Co.*, ___ U.S. ___ (1991), the Court held that certain directories and other data compilations will receive little or no protection under the copyright laws. Feist involved a claim of infringing a "white pages" phone directory, but the Court's broad ruling will apply to fact databases in all media, including the electronically stored databases found on BBS's.

Before Feist, some federal courts granted copyright protection to data compilations based on the compiler's work in collecting the data, regardless of whether the compiler did anything new or original. The Supreme Court held that such work (sometimes referred to as "sweat of the brow") is not enough to qualify for copyright protection. It is fundamental that copyright law can not be used to protect "facts", which must be available to all for public use and discussion. Merely collecting facts into a data "compilation" does not change this principle - if the indi-

vidual facts are not protected, they don't gain any copyright protection by being bunched together.

All databases now must contain original "selection, coordination or arrangement" of the data by the compiler to receive copyright protection. Normal phone directories are an example of databases that do not meet this standard, and are not copyrightable. They all use the same standardized, unoriginal format - name, address and telephone number, arranged alphabetically by last name. In contrast, an original arrangement scheme that further organized this data in terms of the age of the owner of the house at each listed address might well qualify for copyright protection as an original arrangement.

The Court also held that even where a given data compilation is copyrighted, it might only receive "thin" copyright protection. This means copying data in the exact form presented by the compiler will infringe (such as photocopying

pages of a print directory, or copying the database file held in the BBS), while taking the data and using it in a different form would not.

This reflects the rule that the compiler's original presentation of facts can be copyrighted, but not the facts themselves.

The Feist decision affects all factual compilations, such as directories, bibliographies and various kinds of statistical data, and reduces the copyright protection previously thought to apply in many cases. It does not, however, reduce the copyright protection available for texts, music, computer programs, or other non-compilation works. To illustrate the distinction, consider a BBS that electronically publishes both a series of text newsletters and an index to those newsletters. The newsletters themselves will retain the full copyright protection they enjoyed previously, while the index will

now receive greatly reduced copyright protection, or perhaps none at all.

DATABASE PROTECTION STRATEGIES

With this new gap in database copyright protection, some BBS operators may need to develop new strategies to bolster their "ownership" of the data on their BBS's.

(1) Explore legal theories of data ownership besides copyright. Some databases can be effectively protected under trade secret and confidentiality laws. This approach can work well for private databases such as internal R&D data or internal company records on an in-house BBS, and privately distributed databases used by investors or industrial researchers. Other databases depend on mass availability to be useful, and cannot sensibly be treated as secret. Such databases include information shared by scientific communities, news, phone books, and travel and transportation directories.

There is also non-copyright legal protection for "hot news". BBS's delivering up-to-the-minute information can prevent others from intercepting that information and redistributing it in competition with them. This protection is available for wire and broadcast news services, and probably for real-time and slightly delayed market information services for investors, among others. There are serious questions about its availability for BBS's that are not primarily "news" oriented, and how long a poacher has to wait before it can freely redistribute the data.

(2) Use practical measures to maximize copyright protection under the "selection, coordination and arrangement" standard adopted by the Supreme Court. One way is to increase the amount of "editorial" work done in compiling and arranging the data, and to document the ways in which the data compiler imposes an original form on his database. The BBS may also deny access by outsiders to "raw data" in easily separable form. The sysop can integrate public domain data with textual or other material that he clearly owns, and claim

ownership of the resulting composite work. This greatly increases the amount of labor necessary for data users to free up and utilize the uncopyrightable factual data for other purposes.

(3) Finally, BBS's can reduce access to their data by outsiders, making it more difficult for them to copy sizable chunks of the database. Public BBS's can do this by raising connect-time fees, search fees, and download fees; reducing absolutely the amount of searching or downloading that can be performed by users within a hour or a day; and reducing the speed at which data can be downloaded. Of course, all these measures are limited by the realities of how many limitations users will accept in order to gain access to the data in the BBS.

The Feist decision does not threaten to destroy the market for computerized databases, though it will strongly skew the course of its development. The important thing for BBS database purveyors is to become aware of the newly established limits on legal protection, and prepare and present their data products accordingly.

[Lance Rose is an attorney who works primarily in the fields of computer and high technology law and intellectual property. His clients include on-line publishers, electronic funds transfer networks, data transmission services, individual system operators, and shareware authors and vendors. He is currently revising SYSLAW, The Sysop's Legal Manual. Lance is a partner in the New York City firm of Greenspoon, Srager, Gaynin, Daichman & Marino, and can be reached by voice at (212)888-6880, on the Well as "elrose", by Internet as elrose@well.sf.ca.us, and on CompuServe at 72230,2044. Copyright 1991 Lance Rose - Editor]

DIRECT DIAL

KAKADU KONNECTION - BBS IN DARWIN AUSTRALIA

Tom Koltai is a Unix consultant living in Darwin, Northwest Territory, Australia. He sells and maintains a fairly hi-powered system to 24 legal firms at about \$360,000 each and as long as he can sell one a year, he makes a pretty good living. The rest of the time, he plays with bulletin board systems. A self-described patriot, he also does whatever and whenever he can to help promote tourism in the Northwest Territory.

Koltai operates a 5 line TBBS system he calls **Kakadu Konnection** at 61 89 480 700 (from the U.S., dial 011 before dialing this number). Kakadu is an aboriginal term that literally translates to "Land where the snake vomited up the world". It seems that like most peoples of the earth, the native aborigines of the Northwest Territory have an opinion on how the dirty ball of water got started, and in their folk tales, a rainbow snake puked the planet. A large escarpment in the area looks to many like a gigantic coiled snake - probably the one that did the dirty deed.

Kakadu Connection was primarily designed as a file storage and forwarding service for Koltai's legal clientele. But he's expanded the system to include an impressive file collection, messages, chat, an assortment of online publications, and a tourism database listing Northwest Territory accommodations, tourist spots, etc.

Among the publications online are several developed from within the Australian sysop community. The most popular is probably a publication titled CRAP. CRAP is generated by five or six system operators and publishes every time they get around to it. There were four issues published thus far - well three actually made it online. They had encrypted the fourth issue with a public key encryption pro-

gram and somebody lost the key so they're not sure just what's actually in it since no one can read it.

If it's like the first three, it may be for the limited tastes of those enamored of bathroom humor. In fact, the opening screen is a clever ASCII depiction of a man with his head in a toilet bowl which drains into a large character logo of CRAP. The magazine contains jokes, crudity, and basic online obscenity that in its own way is a bit captivating.

Another online publication is Leming's Digest, which purports to be the most boring publication in the world, delving into the depths of boredom and only resurfacing to have another go at it.

Kakadu Connection offers an interesting twist for business callers. Koltai has lined up experts from the business community including a bank manager, collection agent, solicitor (Australian lawyer), real estate agent, tax accountant, and doctor. Each maintain their own area of the service and callers can pose questions regarding these specialties online. The result is a resource bank of business advice that has to be considered a treasure.

The system uses ANSI graphics to good effect and provides a bit different interface than you may be accustomed to seeing - in a refreshing way. Almost all TBBS systems look different and this one certainly does. But we found it usable and entertaining. The local information about the Northwest Territory made this a particularly interesting call. Tom Koltai, GPO Box 1600, Darwin, NT Australia 0801

POMPEII BBS - NETWORKING INTERNATIONALLY

When most people think of BBS operators, the image of a 58 year-old Jewish grandmother somehow just doesn't spring to mind. One that's drop-dead gorgeous to boot would further confuse the situation. But Zippy Manus is unique in many ways. Zippy started out as an entertainer. A ballet dancer in Israel, she debuted in Mid-Sum-



ZIPPY MANUS - SYSOP OF US POMPEII

mer Night's Dream at age 10. Later she joined the Israeli army as a theatrical performer entertaining the troops. In 1954, she met Stan Manus, a pioneer in the U.S. computer industry who was lecturing in Israel at the time. They met at a sidewalk cafe and were married nine days later. There was a little problem. She didn't speak English for the first year of their marriage. And Stan, who bears a striking resemblance to Albert Einstein, didn't speak her language. Still, they moved to Los Angeles.

She became involved in the backstage operations of the local musical theater scene serving as a casting director, producer, writer, and translator for a number of local theater productions over a long and widely acclaimed career. A bout with cancer forced her to a less public, more home-bound existence and to get her out of the house mentally, her husband presented her with a modem for Christmas 1986.

It worked. She became active on several local systems, including Talk Channel LA - a multiline DLX system. One of the callers to Talk Channel was Martin Judkins, an Englishman living in Utrecht Holland who was interested in using DLX as a multiline social system. Subsequently, they met in London as Zippy was traveling to Israel and Martin was attending a two week communications course in London. He described his plans to set up a BBS in Utrecht titled POMPEII. He suggested she do the same in Los Angeles.

And so she did. The two became fast friends and worked out a method to link their systems to pass electronic mail. Currently, eleven U.S. and six European bulletin boards participate in the INFOTRAN network, including Martin's twelve line POMPEII EUROPE (31 3406 21400) and Zippy's U.S. POMPEII (213-878-2801). Messages pass in a number

of languages including French, German, Dutch, English, and a surprising amount of experimentation in Esperanto - designed as an international language some years ago.

All the INFOTRANS network systems are designed primarily as social chat/matchmaking services using Richard Gillman's DLX software. Martin Judkins has done translations of the system into Dutch and German. But most of the INFOTRANS systems are not really sexually oriented. Zippy charges \$100 per year, \$60 for six months, or \$40 for 3 months access. But she actually interviews each applicant to what she thinks of as a private club to keep the system pretty interesting and clean. She currently has slightly over 200 paying subscribers on her 24-line system. Oh, there is one kicker, she's also doing a cookbook and in addition to the annual fee, you pretty much half to cough up a recipe to really get in her good graces. She spends a lot of time online as hostess.

Martin Judkins, INFOTRAN Systems, POB 3109, Utrecht, The Netherlands, 3502GC; 31 3406 22204 voice. Zippy Manus, U.S. Pompeii, 7600 Willow Glenn Road, Los Angeles, CA 90046.

ECHO - EAST COAST HANG OUT

by Lance Rose

"There is *another* New York," - the New York of Echo. Echo is a bulletin board based in Greenwich Village in the heart of New York City. It is devoted wholeheartedly to the many splendors of on-line conferencing.

That opening line is an official Echo slogan, and tells a lot about it. Echo has deep roots in the concrete of Manhattan, but it creates a new kind of meeting place previously unknown in this vast town.

The first words that leap to my mind when I think of Echo are "friendly" and "fun". Echo users are friendly to an extent I never before encountered on-line (what, friendly New Yorkers?). Echo

users, known as "Echoids", include artists, scholars, students,, computer people, musicians, professionals, writers, and the occasional stray construction worker.

Everyone is encouraged to introduce themselves when they join Echo. A series of "hello" messages will greet the "newbies" for many days afterwards - returning the greetings can become exhausting! But that is just the beginning...

There is a feeling of mutual trust on Echo allowing Echoids to get very comfortable sharing their thoughts and feelings with others. Echoids regularly share projects, dreams, and even such mundane details as taking showers and walking dogs. There are also those who choose to adopt new personas for their on-line lives. Other Echoids are ready to accommodate such activity, and even help construct and solidify these "virtual people". The warm, supportive side of Echo extends to conferences dedicated to male- only topics ("MOE" for Men on Echo), female-only topics ("WI1" for Women in Telecommunications), and even "Group Therapy" and "Twelve Step" conferences.

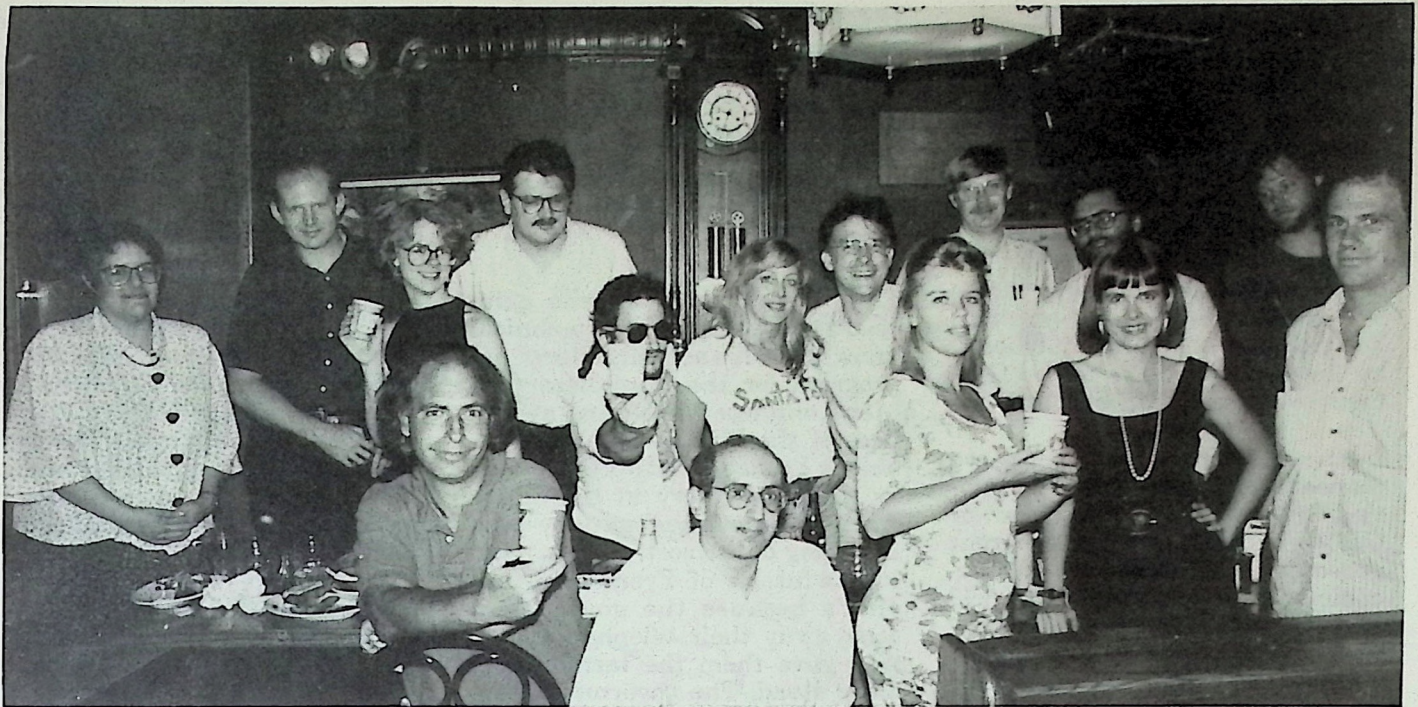
Echo friendliness is so great that it regularly spills past the electronic limits of the system. Echoids socialize in person in all sorts of settings, referred to in Echo as "F2F"'s (for "face-to-face" meetings). Perhaps the main F2F is a biweekly Monday night get-together at the White Horse Tavern in Greenwich Village (mainly famed as Dylan Thomas' last regular watering hole), known as the "Echo Clique" meeting. The name is a bit of a joke, since everyone is invited to this get-together, so it turns out to be a clique that includes everyone!

Other F2F's include boat rides, picnics, lunch meetings, breakfast meetings, "downtown cliques", "midtown cliques", meetings at concerts, meetings at Echoids' homes, meetings at pool halls - the mind can boggle trying to keep track. Several Echoids in New York are always ready to put up travelers from out of town. At times, it seems New York City is just an extension of Echo and the Echo community.

You might have suspected I forgot "fun", but that's impossible in Echo. Echo users are devoted to play. "Play" occurs at many levels: word play (puns and rhymes both bad and fine can pop up at any time), concept play (as is often heard on Echo: "The Philosophy Conference is thataway ----"), running jokes, snappy one-liners, monumental non-sequiturs, indescribable moans and grunts, and stuff that depends entirely on rhythm or screen location (or both). A couple of months ago, one of the more active Echoids burst forth with a strange labor of love: well-wrought limericks about many of the more vocal Echoids, sprinkled all over the Plain Wrapper conference.

Uhh, Plain Wrapper? It's known simply as just plain "Plain" to its habitués. This "anti-conference conference" is not a conference in the normal sense. It has over 400 different topics, but rarely will you find a discussion in any one that stays even remotely on topic for more than two or three messages. In fact, the more coherent discussions in Plain usually wander hazily from topic to topic without regard to the headings. Plain is necessarily a deep immersion experience. Newcomers often say things like, "you guys are nuts", but within a week or so you find them busily carving out their own odd niches in the cavern walls off Plain.

Plain is an enthralling exercise in minimal-structure conferencing. In the absence of externally imposed structures, local myths form spontaneously in Plain. Chief is the cult of the mythical "P-Cup", which stands for the Parthenon Cup, the ubiquitous decorated cardboard take-out coffee cup used by many New York coffee shops. Some Echoids maintain P-Cup collections, and there is occasional earnest talk of an F2F pilgrimage to local P-Cup factories. Another related cult is centered on the Manhattan vice of drinking too much coffee, called "goffeee" by its idolaters. Other common themes include "mutants", "lutefisk" (don't ask me), and "gross food".



The Echo Crew on Sabbatical at the White Horse Tavern in Greenwich Village

A word of slight caution: Plain is freewheeling and irreverent in its language. It is a bit coarse, bawdy, Chaucer plopped in a computer nestled among tall, peopled stone towers. And it's a lot of fun.

There are many other conferences on Echo, perhaps slightly more structured, yet sharing in the feeling expressed in purest form in Plain. Without meaning to slight others, I'll mention some of my favorites: Panscan, run by an Echoid named Panman, devoted to being art and about art; Central, the entry point conference, where Echoids who are so inclined share the details of their lives; New York, with a pretty self-explanatory name, and an obligatory topic on favorite pizza places; and Culture, where Echoids reveal themselves as craven mass media junk culture addicts.

Echo is the creation and ongoing project of Stacy Horn. She got her start in conferencing as a Mobil Corporation employee charged with creating an in-house corporate BBS system. She eventually grew tired of the company's limits on what she could do, so she struck out on her own with Echo.

"ECHO" stands for "East Coast Hang Out", and was initially conceived as the East Coast answer to San Francisco's Whole Earth Lectronic Link (WELL). Indeed, the user interface is modeled after the Well's, and can seem a bit sparse to those raised on other BBS user interfaces. However, the system comes to feel friendly and muscular very quickly with use. Stacy hastens the learning process and initiates newbies into the Echo community through "Echo School", a teaching session she holds at Echo headquarters once or twice a month.

Echo is set up as a conferencing system, meaning it is primarily devoted to public messages, e-mail, and some live chat. There is no credit for uploads, and little file transfer of any sort. In fact, there are no dedicated file transfer areas, though the capability is available for those who want to make use of it.

Okay, techies: here are the hard specs you've been waiting for! Echo uses a customized version of the Caucus computer conferencing software, running under SCO/Xenix. It currently operates on a single 80386 with 613 MB of storage and ten 2400 bps modems

on a hunt group, with expansion plans imminent. Though Echo's physical component is smaller than some of the mega-systems out there, it creates the impression of a huge internal space by concentrating on messaging and staying away from the file transfer business, which can sap hard disk space quickly.

Echo supports over 500 users, and can be reached in New York at (212)989-8411. Members outside New York access Echo via PC Pursuit. (The PC Pursuit \$30 registration fee is waived for Echo users.) Billing is monthly at a flat rate (\$18.95 or \$9.95 for students and seniors), allowing dedicated users to support a habit that may occupy an hour or more each day.

So if you're not from New York, and you'd like to see "another New York" very different from the mass media image of rude cab drivers and purse snatchers, give Echo a try. If you **are** a New Yorker, and you just want a break from all the rude cab drivers and purse snatchers, then Echo may be for you. It's a real nice place.

PENTHOUSE MAGAZINE BBS - NUDE PET GRAPHICS FILE DOWNLOADS

Penthouse Magazine is one of several high class color glossy periodicals everyone reads for the editorial matter of course. But it does features some remarkably detailed photographs of young ladies in various poses of indiscretion. You get to see them unencumbered by the valiant efforts of the Garment Workers of America union.

In the online world, CompuServe pioneered a bit-graphics format titled Graphics Interface Format or GIF (pronounced, for no apparent reason, "jiff"). The format has become a standard in the BBS world and it is used primarily to carry pornographic photographs. Some are reasonably good, but most feature strikingly plain women rather artlessly photographed by those whose higher calling is probably more aptly found in the building trades or automotive repair.

When we learned that Penthouse Magazine was operating their own online service and making the professional photographs of their "pets" available for download in the GIF format, we thought it might be interesting to "have a look" so to speak.

Well, we did look at the service (two of them actually). We never did get to see the photographs so it's back to the fat chicks with donkeys on that score. But more importantly, we think we have found the WORST online service in the world using a startlingly backward combination of ridiculously high prices and absolutely horrible technology. You should spend the ridiculous amount this service costs just once so you will have a firm picture of just how badly it can be done.

The start of this horror show is a 900 number where you download a special terminal program. The number is 900-463-8300 and it costs \$1 for the first minute and \$0.50 for each minute thereafter. You access the plainest TBBS system in existence with four menu entries. One of them allows you to download a self extracting file titled **PETSOFT.EXE**. This

194,379 byte file takes about 15 minutes to download so you'll be out \$8.00 there. We can ameliorate this somewhat by making the file available for download on the Boardwatch system for those who subscribe to it, but I wouldn't bother downloading it there either frankly.

The program itself installs quite readily and requires no technical knowledge. It's actually a terminal program for the Minitel service. Many onliners have some awareness of the Minitel service available in France and it's often quoted as a success story in the online world. It never has actually been anything of the sort. It does sport an awful lot of Frenchmen but that's because the government took away their telephone books and gave them the terminals in their stead. The government also supports this monstrous loser with about \$750 million dollars a year in tax funds. My personal opinion is that Minitel is not only technically just barely above signalling each other by throwing rocks, but that it is a striking example of how to hose off 3/4 of a billion dollars each year on something stupid.

In any event, what you may not know is that Minitel is also available in this country. Actually, it has been for years - we just didn't think it was worth a story. And on a revisit, we were very correct the first time.

The PETSOFT program includes local access numbers, a very easy to use configuration program, and you will find it quite easy to connect to a local Minitel access number. This is actually the whole Minitel service, not just Penthouse, and you must provide a credit card number and expiration date. Once you do so, you're given a logon name and password immediately.

From the main menu, you can enter PET to go to the Penthouse "service" (in the bull/cow sense of the word). Each service on Minitel features a different rate that Minitel and the information provider split up. In this case, it is \$0.50 per minute (\$30 hourly).

The Penthouse service provides sex chat areas and the downloads of Penthouse Pet GIFs we were seeking. The service is actually quite easy to use if you don't mind it being terribly slow and using the gawky mosaic graphics Minitel has always used. We selected a GIF to download. The PET software dumped out to a download function and we prepared to wait out a 169K file download at 2400 bps. It never happened. The screen informed us we could abort the download any time by pressing a "lot" of CTRL-Xs and it proceeded to make the transfer - counting the number of good 1K blocks received as well as indicating the bad blocks that had to be retransmitted. We gave up when we had 12 good ones and 15 bad ones. But the CTRL-X had no effect. Neither did any of the other keys on the keyboard. We had a runaway file transfer that couldn't be shut off, and couldn't possibly complete in one night, at \$0.50 per minute. This with a Hayes Ultra modem. At 65 good blocks and over 90 bad ones, we finally pulled the plug on the modem and wrote the credit card company a letter instructing them to tell these people to go pound sand.

We still don't quite know why Jewish grandmothers, handicapped people with no money, and eight year old girls all seem to be able to run perfectly charming bulletin board systems while governments, corporations, telephone companies, Minitel, and Penthouse Magazine so consistently and thoroughly hose the concept up. But it is so. In any event, you can buy the mag for less than four bucks on the newsstand and it's much higher resolution.

SAILING INFORMATION CENTER - PUTTING THE CHESAPEAKE ONLINE

Most of the large, multiline BBS operating today are general boards featuring massive shareware file libraries and several hundred networked mail areas. There are also several large Unix "conferencing systems" devoted to conversational message traffic that do pretty well as gathering places. Multiline chat services that allow callers to type to each other on

screen in real time are also becoming quite popular - particularly in California where systems such as Odyssey, KBBS, and Baud Town do pretty well.

The very bottom of the economic food chain online is the specialized topic or theme bulletin board system. They are, quite frankly, our hot button here at Boardwatch for a couple of reasons. First, they make good stories of course. But more importantly, they represent a new cottage industry that we think will change our society's entire relationship with information.

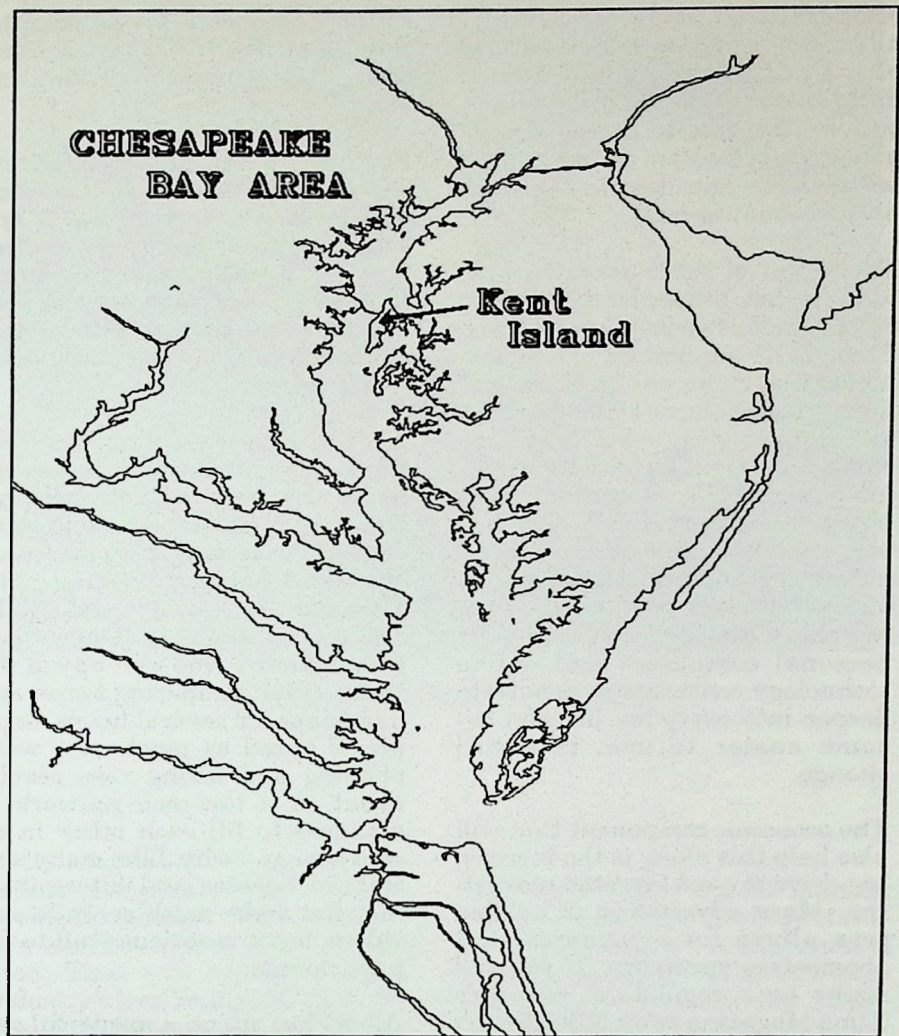
Our nation's library systems are doing a marvelous job in going online. Massive card file indexes give callers a very broad, but relatively shallow, access to millions of titles of printed matter. Some of these, like the Colorado Alliance of Research Libraries (CARL) have databases containing millions of titles you can search by keyword, author, title, etc. But once you've completed your search, you wind up with little more than a reference to a printed work. Eventually, we'll see full text online in many ways but the basic paradigm of libraries will be very broad searches resulting in relatively shallow information on topics that have been well published.

There is a certain type of personality within our human family that quite naturally collects information. We call these people "native librarians". They don't have anything to do with public libraries but you've seen them at work. They have extensive collections of both knowledge and hard goods relating to some particular topic of passion. Beer can collections. Motorcycles. Superman memorabilia. Barbed wire (there's actually an association of barbed wire collectors and they have a trade show). There is no topic too narrow or specious for someone to not only collect information on it, but become an expert. The amount of information available on these narrow topics is incredible. And the degree of expertise individuals attain on this "trivia" is almost frightening. Some of these people can look at a photograph and tell you "that's a 1952 Harley Davidson motorcycle, but it was built after July because

of the problem they were having obtaining the handle bar grips. See here, this one's got the new grips they got from the new supplier. There's an interesting story about that if you have a few minutes....."

The problem is, these people have their collections in their basements as a rule. They, and a few fellow enthusiasts, know about them and if you ever really dig into motorcycles, barbed wire, or whatever, eventually someone will point you to the "guy" with the right stuff on the subject. BBS technology offers these people an unprecedented tool to share their knowledge with anyone who has a modem and the right ten digits to dial. They can profit from it, and the world can as well.

The interesting thing about this combination is that it draws other people of similar - if perhaps less rabid - interests. And as they slowly congregate around a spe-



cialty BBS, they form a specialty group that associates based solely on this common interest - not geography or time zone. At some point, as much information is coming IN to the BBS from the participants as flows out from the native librarian. And at that point, an element of information equity has developed that can't be taken away by someone with bigger hard drives, more money, or more telephone lines. THE place to go for information on that topic is that system. ATT can't duplicate it and neither can IBM - without expenditures the eventual profitability would not warrant. In the long run, special topic bulletin boards are almost invulnerable - and eventually they will provide a modestly good living to the individuals and small cottage groups that operate them. And eventually, the library "umbrella" which is broad and shallow, will redirect inquiries to specialized information systems that form the "narrow and deep"

component. At some point, virtually all information will be rationalized in this matrix and from a desktop computer in your home, you will be able to access almost everything known on any topic within a few minutes - in a reasonably rational fashion.

The power of these specialty systems is not immediately evident right now for two primary reasons. First, it IS the bottom of the economic food chain online. They just aren't profitable, or even plausible to run in any big way right now. Secondly, THE specialty topic online now revolves around the computer technology itself. Too few cockatiel enthusiasts have computers currently to really form up online very well. Woodworkers are working with wood - not silicon. As personal computers and online technology continues to penetrate deeper into everyday life and become easier to use, this will change.

The economic component that will also help this along is the increasing drive toward targeted marketing. Mass advertising is holding less allure for companies that themselves specialize. If you sell scuba tank regulators, an ad in Time Magazine or on NBC doesn't pay off very well. Only a certain percentage of the audience has any interest in your product at all. Products are becoming more specialized and their marketing techniques must be more specialized as well. While it's nice to advertise your product to 10 million homes, it is also very expensive and may result in only a few hundred orders. If you could advertise to 10,000 people who are already scuba enthusiasts and generate the same number of orders, it should be much less expensive. And special topic bulletin boards play to this very well.

One of the best examples of how all this works that we've found so far is a system run by Darren Albert of Kent Island Maryland. Albert is an ADA programmer for a defense contractor in the area - but his real love is sailing. Living on the Chesapeake Bay, sailing is a very popular sport there. There are over 80 sailing clubs in the area and dozens of specialty shops carrying

sailing equipment, devices, charts, radios, along with boat brokers, and dozens of marinas offering services.

Further, sailing has an information problem. After whipping back and forth across the bay a few times in their sail boats, sailors have a naturally competitive urge to see who can navigate the best and move the fastest. The numerous sailing clubs essentially exist to hold races.

Sailing races are not like foot races, drag races, or donkey races. Boats vary tremendously in design and speed. So sailing clubs have devised a seriously complicated class and handicapping formula. The result is that they sail madly, race all day, and at the end of it all, no one knows who won any of the races. After comparing times and handicaps for several hours, organizers spend as much as a week phoning and faxing race results about in a low-tech network of madness to fill each other in on who won and why. Like many specialized hobbies and interests, it may not make much sense to outsiders, but it is serious stuff to the participants.

Albert has set up a masterful system for curing the race result problem, providing the clubs a communication forum, providing information on the hobby, and providing a means for local sailing outfitters to advertise their products to an appreciative and well qualified audience, all at the end of a telephone line.

The SAILING IC BBS operates at (301)643-1466 on a single Compaq computer using The Bread Board System (TBBS) software. It is THE most beautifully designed specialty information system we've ever seen. The menus are colorful to a fault, very easy to navigate, so to speak, and provide a treasure chest of information on the topic.

SAILING IC starts with some basic information useful to the audience. NOAA weather and tide information on the Chesapeake Bay is available daily along with USA Today Newspaper. Albert has recruited a local writer specializing

ing in sailing topics and Karen Paape's *Sailing News* is updated regularly.

The file areas are a bit Spartan - but quite focused on the sailing theme with wind chill calculators, tide prediction programs, navigation programs, a sunrise/sunset calculator, Morse code tutor, weather forecasters, astronomy programs, a sailing simulator, and an FCC radio exam tutorial. GIF images of various sailing areas such as the Bahamas are available. Albert has recently acquired some scanning equipment and vows to put a GIF of every boat on the bay online.

Albert has also set up a menu listing 86 different yachting clubs operating in the area and has politicked heavily among the local groups to bring an impressive number of them online. Each menu entry leads to what is effectively a separate bulletin board for that club. An attractively graphic title screen for each club lists a few menu entries for each club including a general information file about the history of the club, membership, and purpose; a membership application; club newsletter, and discussion and file areas where club members can discuss recent events. Many of these club areas have events calendars and almost all feature race results from recent events online. Other club areas featured crew sign up functions where you could sign up to be part of the crew on various voyages and sail outings - a free ride if you don't mind a little swabbing of decks and heaving of ho.

The race results are of course one of the main draws. A few hours after the close of the race, the club uploads the race results and they immediately become available to everyone 24 hours per day.

Another aspect of the Sailing IC we found impressive was the obvious work that went into the Marine Mall. Complete contact information for 34 yacht brokers, 66 marinas, 15 financiers specializing in boat loans, 21 sail makers, chart and map companies, and 33 charter services operating in the area are very easily accessible. While most menu entries for these vari-

ous operations led to simple name, address, and telephone/fax information, some of them held extensive information. These are essentially the paid ads supporting this system - which is totally free to callers.

Hartge Yacht Sales in Gatesville is an example. It features an again graphic ad screen with menu items for an ASCII map showing how to get there, a list of boats available for charter, and a database of yachts currently for sale. If you find the \$625,000 they're asking for a 63-foot 1987 Gulfstar a bit proud, you might like their 55-foot Roberts Ketch built in 1977 to be just the ticket at \$169,000. We were disappointed to find very little in the \$250 luxury class.

One of the most charming, if currently a little thin, areas we found was a public message area where sailors described "memorable voyages". One entry was virtually a 10K article describing a somewhat ill-fated journey to Bermuda that would have made Gilligan's Island pale by comparison. Other areas include discussions and announcements of interest to sailors - we saw one message detailing information on some recreational vessel user fees proposed as part of a Congressional Highway bill.

The SAILING IC overall gives the impression of just being enormous with a massive collection of information, clubs, and merchants all revolving around the very central theme of sailing on the Chesapeake Bay. According to Albert, support for the system, which has been in operation barely six months, is just not a problem. They've had plenty of callers and selling the merchants on the concept of an ad area on the system essentially consists of telling them about it. And despite the conservatism of the local sailing clubs, some of which date back to 1939 or earlier, Albert claims most of them he's talked to have been delighted with the free service. He does note that there are just a lot of them (86) and it will take time to get around to all of them to demonstrate the service while working a full-time job, but eventually he'll be there. When he does, SAILING IC will not only provide a marvelous infor-



GORDON L. GILLESBY & SON

mation service to Chesapeake Bay sailing enthusiasts, but will undoubtedly become THE information service on the topic in that area. That will be the Defense Industry's loss. Sailing IC BBS, PO Box 1012, Stevensville, MD 21666; (301)643-1466 BBS.

BBS FOR THE HANDICAPPED - THE TOP TEN

by Gordon L. Gillesby

Life's a bitch. Then you die.

Cheerful, huh? But the reason that little ditty evokes a chuckle out of most people, is the bit of truth residing at its core. Life IS hard, often we find the light at the end of the tunnel turns out to be an oncoming train. The burgeoning popularity of online information and the BBS community is due, in part, because they provide a faster, easier way to deal with the stuff of life. And life, as a result, becomes a little less hard.

For some, life is harder than for others. Regardless of whose statistics you use, 15% - a minimum of 30 million people - of United States citizens are permanently physically disabled. That's the rock bottom estimate, too. Most authorities feel the real number is, at least, twice that. It soars by an order of magnitude when you consider the rest of the planet. For you skeptics, these numbers DON'T include the elderly.

Boardwatch has seen what few others have: for people with disabilities the online community is a very exciting place of possibilities. To understand what PCs do for us, you first must understand what it is to be handicapped and that's nearly impossible. The scope of disability and how it affects individuals is extraordinarily complex.

Consider the small things most people take for granted: imagine what happens when sight, hearing, ability to move is lost. Or one of 5000+ rare and chronic diseases drastically alters your finances as well as your health.

How many times have you walked into or out of your home this week? Popped off in the car for a few forgotten groceries at some convenience store? Watch your cat walk across the room? When was the last time you had a pain free day? Did you see your son play his first baseball game or your daughter attend her first prom? Can you make your own meals? Balance your own checkbook or answer your own mail? Perhaps you can BEGIN to see what we go through.

People with disabilities often find these kinds of things difficult, not from lack of intelligence, but for lack of ability to manipulate the objects required. That's pretty depressing, but it's not been written for sympathy: being disabled doesn't make people worth less; it alters the way we must live. People with disabilities are just like everybody else: all we want is a fair chance to be all we can be! Most of us find ways to cope, if not improve, our lives. But it's not a "level playing-field" and we're often expected to make progress in unrealistic ways by friends, family, doctors, - even ourselves.

We're talking EMPOWERMENT: the ability to take control of our own affairs, doing for ourselves the same things - to the same extent - as others. Big talk, but that's what it's about. Finding ways for the hearing impaired to see what they cannot hear, ways for the visually impaired to hear what they cannot see and ways for the immobile to access what has been inaccessible. That personal computers can be adapted for use by the visually, hearing, or mobility impaired individuals is well established. By making computer technology accessible to us, a significant step toward self-realization has been achieved.

Largely, however, the application focus of the accomplishment has been focused on employment. But Boardwatch readers are smart enough to know that's just the tip of the iceberg: accessible PC's means the whole vast online world goes way beyond jobs and makes possible a real chance to improve the quality of life for people with disabilities unparalleled in any other technology form.

Online, PC's not only help us find jobs, but find friends as well. It allows us to become just as involved in the world as any other CyberSpace traveler. It even allows participation with others without forcing us to reveal that we are disabled unless we choose to do so. The field doesn't get much more level than that. That's nothing less than breaking down the visible and invisible walls of disability. It is nothing less than freedom.

Others are already infected with a vision of what the online community can do for people with disabilities. Most of them are disabled, themselves - no surprise. It's also no surprise that some have found their principal tool to be running their own BBS. I found myself curious about the boards, how PwDs (People with Disabilities) are using online community and what are the important issues to them. It didn't take me long to set out on a CyberSpace safari to survey the world of Disability BBSing and the sysops who maintain them.

I started by compiling a list of boards listed as "disability BBS" from a very old list of files from HEX - Handicapped Educational Exchange. Unfortunately, it turned out the information it contained was outdated. From there, I tumbled onto Dr. Ed DeGrosso's Black Bag BBS list taken from Denver Deaf-Net. Bill Scarborough from Yellow Dream Machine pointed me to Handicapped News where I picked up a better list compiled by Bill McGarry which I combined with the Black Bag list. For over six months, I've visited nearly 200 BBS systems that could, in some sense, be considered "disability" boards. I've amassed nearly 20 megabytes of log files, screen dumps, system master file lists and a phone bill big enough to qualify me for AT&T Retirement Plan.

I've found many worthy boards assisting people with handicaps and even more worthy sysops who are not content to sit and let "someone else" do it. Along the way, I've compiled a list of the good, the bad, and the ugly. It wasn't my intention to play "Siskel and Ebert" but I ended

with a very informal, intensely personal (and probably biased) rating system.

But it was the people, not the technology, that impressed me the most. Here are men and women willing to work with each other to better the world for all disabled people. No partisan politicking, no turf-grabbing, no information withheld for personal profit. They are very willing to form alliances and coalitions if it will have a positive impact for the greater good. These are, by and large, innovative sysops who understand its necessary to make use of available technology and to push the envelop on its development, as well. And I was touched by the degree these sysops make personal sacrifices to keep their boards operational.

These sysops tell me that **STILL TOO FEW PEOPLE WITH DISABILITIES HAVE ACCESS TO COMPUTER TECHNOLOGY**. It's hard to live on a fixed income and find money to spare so it's still too expensive to purchase computers or learn to operate them. There's also the problem of funded resources: more exist to help the helpers than to help the people with disabilities. End result: the growth rate of computer use among the disabled is disproportionately low compared to the growth rate elsewhere in our society.

Like the general population, some boards were good, many were average and a few could be wiped off the face of the earth without loss. Nearly every sysop taking the time to call or chat ended up listed. Editorial deadlines and lack of money prevented me from visiting everywhere. If you want to know what's happening in the world of online and the physically disabled, these are the best places to start - I suggest you visit them all and get involved supporting their important work.

The standard of living for any society can rise no higher than the standard imposed on its least fortunate members.

4 SIGHTS NETWORK (312)272-7111 (data); Greater Detroit Society for the Blind: 16625 Grand



BBS REAL TIME VGA GRAPHICS!

BAD NEWS AND GOOD NEWS: The Bad: if your BBS is depending on GIFS now, you might be toast. The Good: you can toast the competition with color VGA file sizes of 5K-10K!

IF YOU WERE AT FIDOCON this August you may have seen us download a color VGA image in 4 to 7 SECONDS. As a BBS professional, we don't have to hype you on what this means: a new phenomenon is upon us, one we might have expected with fibre optics and ISDN, but not over ordinary phone lines. Fractal image compression, not JPEG data compression is the key to graphic files small enough for real time interaction with your users.

HOW IT'S DONE: The system uses a proprietary, full length hardware compression board for the ISA bus, with an i960 processor on board. Your user downloads a software decompression utility, and (using V32bis) will see the image within 7 seconds (10K file). Optimal images about 20K. The full length board costs \$8850 (\$7965 for Sysops) and the fee is \$2 per paid user. Leasing may be available for about \$330 per month.

You can also do grey scale and full-motion video over phone lines with this card. Gentlemen, start your toasters.

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TEL: (604) 732-8400
FAX: (604) 732-8412

River, Detroit, MI 48227; (313)272-3900 (voice). They run PicoSpan, a Unix-based Conferencing Program (version T3.1a)

4-Sights has been around since 1985 and administrator, Mary Beth Kullen, is most helpful and extremely patient with people unfamiliar with computing. According to her, "4-Sights Network enables workers for the blind and blind persons... to obtain necessary information more easily, to utilize it more efficiently, and to apply it more effectively toward the common goal of successful rehabilitation." Despite being a UNIX system, it wasn't terribly unfriendly - although it was a bit terse. But Marybeth (as she's known online) is the BEST online hand-holder I've ever encountered. The Network is organized by subject matter into conferences. The information stored here applies to a wide range of physical handicaps and has one of the few forums on Public Policy. There's also information about computers and software, along with Rehab Resources,

Multi-Handicapped Services, Job Placement Exchange, Specialized Training Facilities and Link Up Magazine.

Although the system does show some signs of age, files and messages are kept up to date with current information helpful to a broad range of disabilities, not just the VI. Accounts are validated prior to access but that generally happens within 24 hours. Online help and a manual are available with a hard-copy available for the asking. Kudos on a job well done.

ADANET (AL) running under The Connection RBBS: (205)854-0698/2308 (HST node)/5863/9074; Disability Law Foundation - P. O. Box 374, Pinson, AL 35126; (205)856-0738 (voice), (205)833-3222 (fax) using PCB-board Premium Remote Bulletin Board Service Version 14.5/E6.

A non-profit organization founded by Bill Freeman, Marlin Johnson, Tim Carter, and Jim Hoover specializing in Disability Law and

Technology. Their growth has been explosive despite their poverty. According to Freeman, a recent graduate from Cumberland Law School, "We're poor folk!" He talks with the classic southern drawl and adds, "The greatest need in the disability community is connectivity. We're in the process of expanding by seeking other bulletin boards interested in disability issues to join in making ADANet a national network dedicated to serving the disabled community."

The strong suit of DLF is advent of the Americans with Disabilities Act of 1990. "It's even more important," argues Freeman, "that the disabled access information and become independent through use of technology." ADANet seeks to educate and serve the disabled community helping them compete in a technological world by bringing together doctors, lawyers, the disabled and those working with the disabled to share technology information in a cooperative effort.

Although, The Connection is a subscription board, all disability information and files are freely accessible. All conferences, 12 and above, are focused on disability issues in one form or another and there are over 15 file areas for software associated with disabilities. Once adequate funding is received, ADAnet will become in independent BBS operation.

I believe ADAnet and DLF will become a significant driving force behind the accessibility of technology for PwDs - IF and it's a big if - IF they can get the funding they need. They are a non-profit operation and most of them, regardless of disability their own disabilities, have to hold some other part-time job just to get food on the table. This is one place to send spare change, after all ADAnet is serving America's Disabled Community and you can write off on your taxes as a charitable contribution.

BAYTALK (CA) (415)864-6430
(data) BayTalk Computer Users Group - Box 369 Berkeley, California 94701 running the T.A.G. Bulletin Board System - Version 2.5 operating on an IBM compatible computer with 230 megs of hard disk space and a 2400 baud modem.

A fee-free system serving visually and otherwise physically impaired persons and friends, BayTalk is run by sysop Tom Karnes with able assistants Janina Sajka and Donald Belew along with "Hardware Guru" Richard Lesnick. Their goal is providing information about computer access for persons with visual and physical impairments both through online facilities and regular group meetings held on the third Tuesday each month (except December) at Kam's Restaurant, 2068 Center Avenue in Berkeley which, I'm told, is a half block west of the downtown Berkeley BART station. The meeting begins at 6 p.m. and lasts about two hours. Dinner costs about \$5 - such a deal!

According to Karnes, "We try to keep the business part short so we can give more time to guest speakers and group interaction." If the BBS is any indication, their programs should be both informative and interesting. Their member-

ship rate is \$12 per year and members receive a monthly newsletter along with software library disks for only \$2 (normally \$4). Membership dues also helps support the BBS.

I liked this board because of the diverse nature of the files and areas of interest. Of course there was the usual technical stuff and an area for VI but there was also news, catalogs, games, food recipes, religion, a writer's corner and a humor file. If you're HaD/PwD and live anywhere close to the bay area...you should be on this board. It has a lot to offer and some dedicated people who working to make it be all it can be.

COMMUNITY INFORMATION CENTER (NY) (716)293-2692
(data) OPUS-CBCS v1.13 Fido-net 1:260/225. Rochester Chapter ACM\SIGCAPH - P. O. BOX 92487, Rochester, NY 14692; (716)477-1391 (voice).

SIGCAPH, the Association of Computing Machinery's (ACM) Special Interest Group on Computers and the Physically Handicapped. A special interest group promoting computing information technology towards solutions of disability problems. Sigcaph is open to all individuals with a serious interest, not just disabled individuals and computing professionals. It was founded in Rochester, NY in 1984 and has monthly meetings at Sigl Center with full access to the disabled.

This board owes its existence to sysop John Zima, an engineer from Eastman Kodak who literally built this system out of spare parts in his basement. It's not been online long, but it has made a mark for what it's already done. CIC/Sigcaph supports a local membership around 100 working with hospitals, making equipment loans and repairs, and operating a "loan closet" of X-10 systems (remote control devices). It will soon be TDD operational and it's funded from individual donations and a small ACM grant.

They also founded and are the principal sponsors of The Adaptive Computer Olympics. A yearly event generally held in late May at

Edison Technical High School in Rochester, NY. Participation has been growing in both the number contestants and volunteers over the last couple of years. This year 25 contestants competed and the winner received an IBM Personal Computer. It is an enormous undertaking, so it is currently limited to those in the Rochester area; however, they are considering a possible expansion of the project should sufficient interest and volunteers appear. Kimberly Ganley is CIC's ACO Organizer.

BBS file areas include S.I.G.C.A.P.H. Files, Rochester Agencies for the Disabled, coverage of Americans with Disabilities Act, Education for All Handicapped Children Act, Handicapped Digest files, and three national echos: Silentspeak ABLED, and Blinktalk (it's expanding it conferences and echo coverage).

This is what "grass-roots computing" is all about, it won't dazzle you with fancy menu or state-of-the-art hardware, but it's proof that people can use technology and the online community to help themselves and each other. This board deserves national recognition, if for no other reason than the Adaptive Computer Olympics which may have greater value than some holiday tele-thons I could mention. But there are other reasons including the ties to ACM which should provide a focal point for academics, researchers and corporate disability computing issues. It's a shame ACM, itself, doesn't make this a priority funded project.

DCCG - Disabled Children's Computer Group (415)841-5621
(data) running QBBS version 2.66 with Front Door version 1.99c on an IBM XT, 20MB hard drive and 2400 baud modem. FidoNet Node 161/40. Disabled Children's Computer Group 2095 Rose street, Berkeley CA; (415)841-3224 (voice). DCCG is a non-profit directed toward facilitating PwD access to the world of adaptive technology with a specific focus on children. They maintain a site with a large selection of adaptive devices for people to come in and "test drive". They also provide advise on available equipment and information on funding resources.

DCCG BBS started after Guy Thomas met David Clark at the World Institute on Disability. Says Thomas, "we were both disabled and both had been bbsing for years. We decided to start a disability-related board together." Though their connection with WID failed to blossom, they met Bill George of PC Clubhouse and Lisa Wahl, director of DCCG. Wahl felt a BBS would make a good outreach program. With sysops Thomas and Clark at the helm, the board has local forums for disabled adults and children and distributes them to nine Bay Area boards affiliated with PC Clubhouse. They also carry three Fido echoes: DISABLED, BLINKTALK, and SILENTTALK as well as originating a California echo, CA ABLED.

Again I'm impressed with how much can be done when sysops take an active part in running a board. There is no fancy equipment here, just dedication and focus on an area largely untapped elsewhere: children with disabilities and adaptive technology. It was the focus on children's needs that brought this board from OKAY+ into TOP TEN. It makes me wonder what DCCG could do if they had state-of-the-art equipment at their disposal.

HANDICAPPED NEWS (CT) (203)337-1607 (data) running Opus 1.03c on an Olivetti M-28 PC with a 50MB disk and a 2400 baud modem. This board is dedicated to distributing information for the handicapped and is run by sysop Bill McGarry (203)337-1518 (voice).

I've no idea how this man does all that he does or what he lives on in the meantime. If there was a board WORTH paying for, this is it. He maintains the most comprehensive list of PwD Boards I could find anywhere - boards, literally, from around the world! Messages and files abound. Nearly all are heavily trafficked. Most of the conferences carried concern the handicapped: ABLED, Spinal Injury, Chronic Pain, Silent Talk, BlinkTalk, Advocacy, etc. to name but a few (I counted 37). It's also the gateway between FidoNet and the Handicap News news group (misc.handicap) on Usenet which distributes

to over 8 thousand computers users throughout the world. Handicap News is distributed in digest form as the Handicap Digest and is electronically mailed to thousands of people on other networks such as Internet, BITNET, ARPANET, DECNET, etc.

One of the premier PwD BBS in the country. Anyone with the slightest interest in the world of PwD computing: stop by here, explore and participate! If you run a PwD BBS, make this a regular stop to update information and schmooz with other sysops of your kind. This is one of the few boards which gets my unqualified endorsement and it's one of my five favorites.

METRO INFOLOOK (NY) (212)831-9280 (data) a subscription BBS (\$15.00/month) Metro On-Line Services, Ltd. P.O. Box 6849, New York, NY 10128 (212)996-9880 (voice), (212)996-7907 (fax), and try METRO HotLine Voice BBS (212)996-6868. A commercial multi-line system providing live international chats, an electronic matchmaker, Public Message Boards, a CD ROM library of over 15,000 programs, files and digitized photos for IBM, MAC, Atari and Commodore; a Database Subsystem, INFO-MAT magazine, UPI News, NewsBytes Magazine and three syndicated columns. A member of the CatNet Network featuring NetMail to over 18,000 active BBS members nationwide, METRO is accessible via Global Interconnect's Worldwide Network providing local telephone access in 1000 cities from 80 countries.

This is my effort to be objective. I have some difficulty with subscription services - not that I'm against free enterprise - but because I'm afraid too many PwDs can't afford to participate. To be fair, Metro MAY offer a discount to PwDs, I don't know. Why did it make the TOP TEN? I could say it's because of TONS of files for all computer types. Or the massive number of conferences on every type of human interest. Of course, there's also the international chatting. Or access to current events and public information. All true, but for PwDs, that's not what makes this board worth the time and money.

Tzipporah Benazrahm has got to come close to being the most well-informed person I've ever known concerning PwD using computers or anything remotely connected to adaptive technology. The woman posts over 100 new files EACH MONTH (I had trouble finding PwD boards posting that many in a year!). Short and sweet: if I HAD to pay to join ONE fee-based PwD BBS, this is where I'd pluck down my cash. You'll have your finger on the pulse of the PwD world.

NERD'S NOOK (OH) [aka Nerd's Nook II & Neuropsychology Bound] (216)356-1431 (HST 14.4/v.42); (216)356-1772 (HST/Dual 14.4 v.42bis/v.32bis); (216)356-1872 (HST) FidoNet (since 1985) 1:157/2 3 & 4 using BinkleyTerm Version 2.40 PCB-board v14.5a/E6 operated by HelpNet for the Impaired, Inc. - 23146 Lorain Rd., Suite 313, N.Olmsted, OH 44070; an Ohio Non-Profit Corporation founded in 1990. Sysop Butch Walker has had the system online since November 10, 1985 with Over 145+ Message and Conference areas.

HelpNet, Inc. maintains NERD'S NOOK as the anchor to an international network of BBS systems promoting Self-Help Electronic Support Groups allowing individuals with impairments to communicate with others facing similar challenges. Their goal is bringing hospitals, rehab centers, professionals and Institutions into this network, providing impaired individuals, their care givers, and interested parties local access to help, support and information. An important part of HelpNet is working with educational institutions establishing programs to train people with disabilities how to effectively use computers. HelpNet is entirely a volunteer effort - none of their Board of Directors, all executives and professionals from the Cleveland area, receives any compensation.

Nerd's Nook BBS offers Message Bases, Files, Bulletins, Online Games and Programs providing information on disabilities, other medical and psychological topics, topics of interest to adults, and help with some software programs in the business environment. Top-

ics cover everything from Adoptees, Alzheimers, or Amputee through Rare Conditions, Pain, or Stock Market to Ventura Plus, Vietnam Veteran, or Visually Impaired. Says sysop Butch Walker, "The rest you see is pretty much icing on the cake. Computers and education are the keys to increasing the quality of life for someone suffering from an impairment."

The board started in October of 1985 in Concord, California as one of the first BBSs in the country to carry echomail and the first Fido-Net Echomail Backbone system in the world. It's been an avid participant in the growth of Fido, Opus, QuickBBS, Lynx, Seadog, & BinkleyTerm, plus utilities such as ArcMail, Confmail, etc. Walker is understandable proud of his efforts, "I'd like to think Nerd's Nook has had an impact on BBSing. Not to the extent of (Ward) Christiansen or (Tom) Jennings, but Nerd's Nook played a major role in getting Echomail from a dream to where it is today."

The Nook is another of my five favorites. Lot's of features, intuitively organized and responsive. Plenty of online help and Butch keeps close tabs on what's happening in the HaD/PwD world, in part because he's the moderator for many of the FIDO echos dealing with disabilities.

TEDINET (VA) (703)759-2424 running Searchlight BBS System Version 1.76M, TEDI-NET is operated by Telecommunications Exchange for the Deaf, Inc. - Box 508 Great Falls, VA 22066; (703)759-2993 (voice or TDD) on equipment obtained through a grant from the Capitol IBM PC Users Group.

TEDI is a non-profit organization servicing speech and/or hearing-impaired. Their primary service is the relay of telephone calls between the hearing and hearing/speech impaired from 6 a.m. to 11 p.m. seven days a week (emergency calls, only, after 11 p.m.). TEDI has offices in Rockville, MD, Great Falls, VA, and on the campus of Gallaudet University in Washington, DC. They also operate the Info Line (703)759-2488 in Virginia or (301)251-1990 in Mary-

land or DC to get weather and other information via TDD calls or 300 Baud ASCII.

Esther Schaeffer, president of TEDI, along with Bill Smith and Randy Mays (volunteers) handle the sysop chores for Tedi-Net bulletin board. Primarily oriented on the hearing/speech impaired, the board is open to the public for posting private or public messages, information bulletins and files.

This board made my hit-parade because it was the most active HI (Hearing Impaired) board I found. Lots of information files and software - most quite current. There appears to be steady message traffic and quite a few people from the HI community seem to make it a point to stop by on a regular basis. A good place to catch the pulse of what's happening among the hearing and speech impaired!

YELLOW DREAM MACHINE (TX) (512)451-3222 The very first BBS I called, YDM is run by Bill Scarborough and has already been featured in Boardwatch. Bill and sidekick-of-the-day Gene Kile gave me my first lesson about boards for and about PwDs during our three-hour online chat. Thanks, Bill and Gene. You became the model for the TOP TEN rating (believe it or not, I wrote that BEFORE seeing the article in the last issue of Boardwatch).

[*Gordon Gillesby is writer disabled by a chronic disease process and volunteers as the Director of Information Resources, United Handicapped Federation, Suite 284 South, 1821 University Avenue, St. Paul, MN 55104; (612) 645-8922. Jacqueline T. Alfonso, Executive Director. - Editor*]

STOCK OF THE WEEK

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BOARDWATCH MAGAZINE

LIST OF HANDICAP/PHYSICAL DISABILITY BULLETIN BOARD SYSTEMS - OCTOBER 1991

TITLE	TELEPHONE	LOCATION	SYSOP	FOCUS
4 Sights Network	312-272-7111	Detroit, MI	Mary Beth Kullen	Greater Detroit Society for the Blind
ADAnet	205-854-0698	Birmingham, AL	Bill Freeman	Hosted on Connection RBBS. Disability Law Foundation.
AMRAD BBS	703-734-1387	McLean, VA	Lawrence Kesteloot	Amateur Radio R&D; telecommunications for the handicapped.
Baytalk	415-864-6430	San Francisco, CA	Tom Karnes	Visual/physically impaired computer users group.
Black Bag BBS	302-731-1998	Newark, DE	Ed DeGrosso M.D.	Medical orientation; Disability echos and files.
Blind Ambition BBS	313-651-4009	Rochester, MI	Brad Scott	Visual Impairment; Leader Dog for the Blind.
Blink Connection	415-276-4121	Hayward, CA	Russ Klehne	Visual Impairment; resource listings.
BlinkLink	412-766-0732	Pittsburgh, PA	William Wilson	Visual Impairment; speech synthesis for the disabled.
Braille Bank BBS	215-244-9937	Croydon, PA	Dave Tanner	Visual Impairment; braille systems.
Broken Rose	916-971-0589	Sacramento, CA	Viken	Promoting Communication between the Aled and Disabled.
Challenged I	613-547-2479	Kingston, Ontario	Martin Van Beek	For the Aled and other people.
Chuck's Attempt	201-729-2602	Sparta, NJ	Chuck Ammann	PwD running a good general interest board.
CIC - SigCaph	716-293-2692	Rochester, NY	John Zima	ACM's SIG on Computers and the Physically Handicapped.
DDCG BBS	415-841-5621	Berkely, CA	Guy Thomas/David Clark	Disabled Children's Computer Group.
DD Connection	817-277-6989	Arlington, TX	unknown	Developmental Disabilities Connection.
DeafComm	312-262-6173	Chicago, IL	unknown	Assoc. of Late Deafened Adults public disability board.
DEN (Disab. Elec. NI)	201-342-3273	Hackensack, NJ	Tom Bengali	Disability Electronic Network providing technology for PwDs.
Denver Deaf Net BBS	303-989-9245	Denver, CO	David Sheneman	Hearing Impairment related disability board.
Department of Justice	202-514-6193	Washington, DC	Daniel A. Searing	Disability Civil Rights Division, US Dept. of Justice.
FES Information	216-368-2947	Cleveland, OH	Brian Smith	Functional Electrical Stimulation Research Center.
FIDO-Racer	502-762-3140	Murray, KY	Bill Albritten	Murray State University; helping services for PwDs.
Free-net BBS	216-368-3888	Cleveland, OH	unknown	Case Western University Free-net Project.
Gypsy BBS/ABLED-LINK	403-282-4459	Calgary Alberta	Kevin J. Klement	PwD running good General Interest board with spinal echos.
Handicap News	203-337-1607	Bridgeport, CT	Bill McGarry	Information for/about People with Disabilities.
Handline	703-818-2650	Fairfax, VA	Jim Mountain	General disability Informatio plus much more.
HandiNet BBS	804-496-3320	Virginia Beach, VA	Warren King	Supporting a wide variety of interests for PwDs.
Hearing Aid BBS	305-653-2589	Miami, FL	Jeff Best	General and hearing impaired information.
Hemophilia	319-356-1632	Iowa City, IA	Larry	Region 7 Comprehensive Hemophilia Center.
HOST BBS	518-793-9574	Queensbury, NY	Ross Calloway	Information/technology for PwD; Independent Living Focus.
I CAN	312-736-7388	Chicago, IL	Bogle Bugsalewicz	Serving the disabled and senior communities near Chicago.
Idea Link	301-949-5764	Washington, DC	Zalman-Miller	Sharing/exchanging ideas and software to benefit society.
Information 90 BBS	215-434-2237	Allentown, PA	Danny Michel Uff	Info on adaptive devices for the disabled computer user.
Mass. Comm. f/ Blind	617-451-5327	Boston, MA	unknown	Serving MA visually impaired population. Others welcome.
Metro Infobook	212-831-9280	New York, NY	Bruce 1	Home BBS for Tzipporah Benazrah.
MicroTalk BBS	502-893-2269	Louisville, KY	Larry Skutchan	Visual Impairment; MicroTalk software support.
MSJ SW BBS	508-626-2481	Framingham, MA	Reed G. Lewis	Microsystems Software, Inc. disability products support.
Nat'l Fed'n of Blind	301-752-5011	Baltimore, MD	David Andrews	National Federation for the Blind BBS.
National Amputee Conn.	214-238-0928	Richardson, TX	Rob Thurlow	North Texas and National Amputee Support Group.
Nerd's Nook	216-358-1431	Olmsed, OH	Butch Walker	Helpnet for the Impaired; home of many disability echos.
Project Enable	304-766-7842	Dunbar, WV	Pam Harding	Rehabilitation Technology Association Information Service.
Recovery Room	716-461-5201	Rochester, NY	Patrick Daugherty	Medical board with disability interest.
Resource Access	504-897-9204	New Orleans, LA	Richard Butler	Maternal/Children's health, disability, and disease info.
Scherer'n Place BBS	316-529-2213	Wichita, KS	Jerry Scherer	General interest board with visual impairment area.
Seattle Hearing	206-526-2744	Seattle, WA	Debbie Salo	Hearing impaired focus.
Seeing Impaired Tech.	405-366-1449	Norman, OK	Les Barr	Seeing Impaired Technology Enthusiasts' BBS.
Sky's The Limit BBS	915-594-7808	El Paso, TX	Mark Godfrey	Disability interests, online games, worldwide conferences.
Sounding Board	412-621-4604	Pittsburgh, PA	Stu Turk	Encouraging communications for/with the disabled.
Special Needs	219-659-0112	Whiting, IN	Rick Catania	About social barriers facing people with disabilities.
SYNAPSE	202-543-9176	Washington, DC	Harry Hurrie	General disability interest board.
Tedinet	703-759-2424	Great Falls, VA	Esther Schaeffer	Telecommunications for the Deaf.
V/BUG	617-767-2909	Holbrook, MA	unknown	Visually impaired/Blind Users Group.
Vision BBS	613-523-8199	Ottawa, Ontario	Jeff Dubois	For the visually impaired computer user.
Yellow Dream Machine	512-451-3222	Austin, TX	Bill Scarborough	PwD running an excellent BBS for other PwDs.

BOARDWATCH LIST OF BBS LIST KEEPERS

BBS LIST TOPIC	LIST AUTHOR/EDITOR	CONTACT BBS	TELEPHONE
Republic of South Africa.....	Henk Wolsink.....	Catalyst BBS.....	(041)34-1122
Darwin National BBS List.....	Meade Frierson.....	USBBS Update Line.....	(202)547-3037
BBS With Handicapped Focus.....	Bill McGarry.....	Handicap News BBS.....	(203)337-1607
Seattle AC 206/West Washington.....	Bob Dinse/Nanook.....	Eskimo North.....	(206)367-3837
Autocad Related BBS.....	Jason Osgood.....	Alacrity BBS.....	(206)643-5477
Maine BBS.....	Eric Rodzen.....	MaineNET BBS.....	(207)767-1273
Astronomy/Space BBS.....	John Pickens.....	Starbase III BBS.....	(209)432-2487
NY/NJ/CT/PA/DE.....		Network One BBS.....	(212)628-5486
Graphical User Interface BBS.....	David Shapiro.....	The Goocy (GUI) BBS.....	(212)876-5885
Southern California.....	Mike Hefferman.....	SOCAL Corner.....	(213)422-7942
Open Access UNIX Sites.....		LGPN1 (login:GUEST).....	(215)348-9727
Area Code 609 - New Jersey.....	Ron Brandt.....	Satalink BBS.....	(215)364-3324
Area Code 215 - Philadelphia.....	Ron Brandt.....	Satalink BBS.....	(215)364-3324
Cleveland Area 216.....	Eric Rickin.....	Wine Cellar.....	(216)382-2558
Handicapped Issues BBS.....	Richard Barth.....	HEX BBS.....	(301)593-7357
Baltimore Area 301.....	Phillip Bailey.....	Baltimore BBS News.....	(301)633-7870
Medical Issues BBS.....	Edward Del Grosso.....	Black Bag.....	(302)731-1998
Detroit Area 313.....	Horst Mann.....	Tony's Corner.....	(313)754-1131
ASP BBS Member List.....	Bob Ostrander.....	PBS-BBS.....	(317)856-2087
Engineering Related BBS.....	Arthur Petzelka.....	Computer Plumber.....	(319)337-6723
Rhode Island Area 401.....	Mike Labbe.....	Eagle's Nest.....	(401)732-5292
Atlanta Area 404.....	Online Atlanta Society.....	OASIS.....	(404)627-2662
Atlanta Area 404.....	Rodney Aloia.....	INDEX System.....	(404)924-8472
South Florida Area 305/407.....	Eric Thav.....	Silicon Beach BBS.....	(407)276-3750
Milwaukee Area 414.....	Jim Belot.....	The Keep BBS.....	(414)372-3488
Arkansas Area 501.....	Bob Underdown.....	The Gaslight BBS.....	(501)444-8420
Portland Oregon BBS.....	Lisa Gronke.....	DawGone Disgusted.....	(503)297-9145
New Mexico Area 505.....	Frank Lerner.....	Land of Enchantment.....	(505)822-8162
Selected BBS.....	Joseph Caplinger & Son.....	J&J's BBS.....	(513)236-1229
The List National BBS List.....	James Toro.....	PDSLO (The List).....	(516)938-6722
Area Code 517 - Mid-Michigan.....	Rick Rosinski/SAMM.....	Wolverine BBS.....	(517)695-9952
Wisconsin 608.....		JW-PC Dataflex.HST.....	(608)837-1923
South Jersey Area 609.....	Dave Schubert.....	The Casino EBBS.....	(609)561-3377
New Jersey Area 201/609/908.....	Wayne R. Morton.....	Praedo BBS.....	(609)953-0769
MIDI Music BBS.....	Lee Smith.....	MIDImaze BBS.....	(615)877-5528
Massachusetts Area 508/617.....	Dave Goodenough.....	Wyzard's Castle.....	(617)825-3135
San Diego, CA AC 619.....	Ron Dipold.....	Computer's Edge.....	(619)573-1675
Apple II BBS with Internet con.....	Morgan Davis.....	pro-sol.....	(619)670-5379
OS/2 BBS Systems.....	Pete Norloff.....	OS2/Shareware BBS.....	(703)385-4325
Washington DC BBS List.....	Mike Focke.....	Interconnect.....	(703)425-2505
Geneology Related BBS.....	Richard A. Pence.....	NGS-CIG.....	(703)528-2612
Desktop Publishing BBS.....	Frank Atlee.....	Byrds Nest.....	(703)671-8923
Ontario Area 705.....	Alex Draper.....	Cottage Country BBS.....	(705)835-6192
Amiga BBS Lists.....	Captain Chet Solace.....	Exactus Info Service.....	(707)524-2548
Chicago.....	Colby Jordan/Peter Anvin.....	Stillwaters.....	(708)403-2826
Chicago.....	David Nathan.....	HURK BBS.....	(708)801-0823
Houston Area 713.....	David E. Wachenschwanz.....	Atomic Cafe BBS.....	(713)530-8875
Central California Area 805.....	Larry Honore.....	His Board.....	(805)652-1478
Kansas City Area 816/913.....	Roy Timberman.....	Sound Advice.....	(816)436-4516
Dallas/Ft Worth Area 214/817.....	Mark Robbins.....	Second Sanctum.....	(817)784-1178
Tulsa Oklahoman Area BBS List.....	Linda Hargraves.....	Access America.....	(918)747-2542
U.S.S.R. BBS List.....	Serge Terekhov.....	Court Crimson King.....	7-3832-356722

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Camelot (213)397-2106 Los Angeles, California since 03/89. Sysop: Jeff Jordan. Using Custom written 1.0 with 4 lines on Custom built mini with 800 MB storage. Hayes at 2400 bps. No fee. Career oriented international on-line database system. Place electronic resumes on the system which professional recruiters from all over the world search to get you the best paying career. Also a free international social register database just started.

The Comm-Post (303)534-4646
Denver, Colorado since 06/86. Sysop: Brian P. Bartee. Using TBBS 2.2 with 8 lines on MS-DOS 80386 with 2500 MB storage. U.S. Robotics D/S at 14400 bps. \$35/6M \$50/Year fee. An ASP-Approved BBS with one of the finest collections of IBM-Compatible Shareware. Many areas have free download access including an extensive library of Astronomy Software & Data files. Access to hundreds of Message Echos. The Friendliest BBS around!

Pinecliffe BBS (303)642-7463
Pinecliffe, Colorado since 01/84. Sysop: Craig Baker. Using Ultrabbs 2.02 with 6 lines on MS-DOS 80386 with 2200 MB storage. U.S. Robotics at 2400 bps. No fee. FREE BBS! (But for \$20/yr get TWO HOURS PER DAY & NO DOWNLOAD LIMIT!) Lots of files, some oddball echomail conferences. Many online games & tournament! Sysop usually available for chat. 9600 bd HST line at (303)642-0703. Come help us grow!

The Eagle's Nest BBS (303)933-0701
Littleton, Colorado. U.S.A. since 03/87. Sysop: Ron Olsen. Using QuickBBS 2.75 with 1 line on MS-DOS 80386 with 212 MB storage. U.S. Robotics at 9600 bps. No fee. Winner in the 1990 Nifty Fifty and Top 100 contests. This BBS is not theme based and free to all. Paid memberships offered but not required. 212Meg of file areas and many message boards. All msgs to the Sysop are personally answered. Give us a try.

THUNDERBOLT! (312)248-4822
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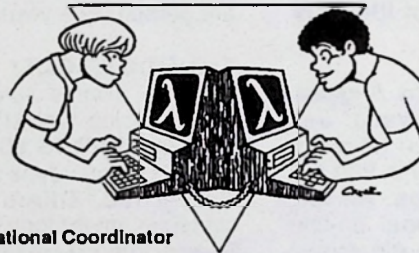
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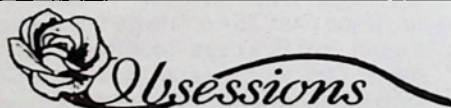
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ADA Information Clearinghouse	(703)614-0215	Information on ADA Programming Language/Military Specs	Department of Defense	Washington, D.C.
American Cybernetics BBS	(602)968-1082	Multi-Edit Product Support BBS	American Cybernetics	Tempe, AZ
ANARC BBS	(913)345-1978	World Radio/TV Handbook - Short Wave Freq Lists/Scheds.	Assoc. of North American Radio Clubs	KS
Applied Modeling Research RBBS	(919)541-1325	Environmental Protection Agency Atmospheric Models	William Peterson/EPA	Hurdle Mills, NC
Aquila BBS	(708)820-8344	2 GB 14 Nodes Fidonet/Interlink/Metronet McE IL/CHI Graphics	Kevin Behrens/Steve Williams/Chris Babb	Aurora, IL
Ashton-Tate Technical Support	(213)324-2188	dBase and Multimate Support - CIS HOST NAME:ATBBS	Ashton-Tate Corporation	Torrance, CA
AST Technical Services BBS	(714)727-4723	Superb support system for AST Computer Products	AST Research Inc.	Irvine, CA
AT&T Support BBS	(201)769-6397	Support for PC 6300 and Other AT&T PC Models	American Telephone/Telegraph PC Division	Plainfield, NJ
ATI Support BBS	(416)758-4591	Support for ATI Modems and Video Cards	ATI Technologies	Scarborough, Ontario
Autophile Network	(818)988-0452	High-end Audio Components, Music, Video Reviews	Guy Hickey/Quatre Speakers	Van Nuys, CA
Automobile Consumer Services	(513)624-0552	New Car Pricing Reports - Used Car Value Reports	Automobile Consumer Services Inc.	Cincinnati, OH
BBS Press Service	(913)478-9239	Home of INFOMAT Online Weekly PC News Magazine	Alan Bechtold/BBS Press Service	Topeka, KS
BellSouth's TUG Gateway	(404)594-3964	Transit Universal Gateway - Atlanta Journal-Constitution	BellSouth	Atlanta, GA
Best Friends BBS	(714)832-5902	DLX Multiline Chat/Match Social/Sexual	Ann and Joe Wiseman	Fountain Valley, CA
Big Peach BBS	(404)448-6850	Home of Automenu and Treeview Software	Marshall Magee/Magee Enterprises	Norcross, GA
Big Sky Telegraph	(406)683-7680	Education/Econ Development Info to Montana rural Communities	Montanna Rural Education Network	Dillon, MT
Bird Info Network	(303)423-9775	Breeding, Raising, Taming, Exotic Birds	Terry Rune/Dave McClaugage	Avada, CO
BMUG BBS	(415)849-2684	Support for Macintosh owners - files - conferences.	Berkeley Macintosh Users Group	Berkeley, CA
Boardwatch Magazine Online Info	(303)973-4222	Distribution Service for USA Today/Boardwatch/Closing NYSE	Boardwatch Magazine	Littleton, CO
Book BBS	(215)657-6130	Information on 2000 Computer Books - 800 order number	Business & Computer Book Store	Willow Grove, PA
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Bruce's Bar & Grill	(203)236-3761	24-line Social System - Chat - Games - Downloads	Bruce Lomasky	West Hartford, CT
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Capital PC User's Group BBS	(301)738-9060	One of the oldest PC User's Groups - 5500 members	Capital PC Users Group/Roger Fajman	Rockville, MD
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Census Bureau Office Automation	(301)763-4576	Microcomputers and Office Automation	US Dept. of Commerce/Nevins Frankel	Suitland, MD
Census Bureau Personnel Division	(301)763-4574	Employment Opportunities Within the Census Bureau	US Dept. of Commerce/Nevins Frankel	Suitland, MD
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Computer Business Services	(714)396-0014	Computer Columnist John C. Dvorak's office BBS	John C. Dvorak and Nick Anis Jr.	Diamond Bar, CA
Computer Garden	(301)546-1508	Treasure Hunting - Metal Detectors - Online Catalog	Milford F. Webster	Salisbury, MD
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Computing Canada Online	(416)497-5263	Adjunct to Excellent Canadian PC Newspaper	Computing Canada Newspaper	Willowdale, Ontario
Corporate Data Exchange (CDX)	(609)683-4422	PR Newswire/Business Wire. Logon: hello user.cdx	LaFountain Research Corp/Tad LaFountain	Princeton, NJ
Crosstalk Communications BBS	(404)740-8428	Product Support for Crosstalk for Windows/MK4/XVI	Digital Communications Associates	Roswell, GA
CTC IEEE Employment Database	(508)263-3857	Online Database of 20,000 Resumes for Engineering	Career Technologies Corporation	Andover, MA
Cul-de-Sac Bar & Grill	(508)429-1784	Multiline Service - Ham Radio - Humor - TDBS Applications	Pete White	Holliston, MA
CyLink	(719)520-5000	Online Chat/Multiplayer Interactive Games - 12 lines	Klaus Dimmler	Colorado Springs, CO
Dante Project BBS	(603)643-6310	Commentary/Research on Dante's Divina Comedia	Dartmouth College	Hanover, NH
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Energy Info Admin E-Publications	(202)586-8658	Variety of Petroleum/Coal/Electricity Energy Statistics	US Department of Energy	Washington, D.C.
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FCC Public Access Link	(301)725-1072	Federal Job Opportunity Lists available online	US Office of Personnel Management	Detroit, MI
Federal Job Information Center	(313)226-4423	Info on Federal Libraries - Excerpts Library of Congress News	Federal Library Information Network	Washington, D.C.
FEDLINK ALIX II	(202)707-9556	The First Fido BBS and home of Fido BBS 12s	Tom Jennings	San Francisco, CA
Fido Software BBS 1:125/111	(415)863-2739	Fidonet Technical Information for Holland	J.J. van der Maas	Utrecht, Holland
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Hay Locator	(307)494-6843	Database of Hay/Straw Suppliers and Buyers	Purdue Univ. Agricultural Computer Net	Peoria, IL
Hayes Advanced Systems Support	(800)874-2937	Customer Support Line for Hayes Customers, V-series/Ultra	Hayes Microcomputer Products	Philadelphia, PA
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Infotek for Upper East Tenn.	(615)434-2551	Support for Intel PC Products - Inboard 386/AboveBoard 286	John Williams	New York, NY
Intel PCEO Support BBS	(503)645-6275	32 Lines - 100 Directories - Good Shareware Catalog 3.2 GB	Intel Corporation PCEO Division	Bellevue, WA
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JEPPLINK	800-767-7000	Online Job Listings - 2186 Technical Pos. - 10,000 Corps.	Alpha Systems Inc./Bill Griffin	Lajas, PR
JOBS	(404)992-8937	Colorful Splitire BBS in Puerto Rico	Jose Frias	Nyack, NY
Joe's Place BBS 1:387/15.6	(809)254-3566	OPTIK, TEXT2COM, CBOOT, very good shareware utilities	Keith P. Graham	Minneapolis, MN
Keith Graham Shareware Support	(914)623-0039	Prime Rate-Fed Funds-T-Bill-Discount Rate-Economic Data	Federal Reserve Bank of Minneapolis	Boulder, CO
KIMBERELY BBS	(612)340-2489	400 MB Books, Writers Area - TRS 80 Support	Jim and Karen Burt	Tucson, AZ
King's Market BBS 104/115	(303)665-6091	Support for LANtastic local area network	Artisoft Inc.	Hannibal, NY
LANtastic BBS	(315)592-7300	Home of GENESIS BBS Software - Multinode LANable.	Carter Downer	San Francisco, CA
Late Night BBS	(415)695-0759	Home of UFGATE - Software to connect PCs to UUCP/Usenet	Tim Pozar	Westborough, MA
Late Night Software 125/555	(508)836-3967	Legal Issues/Forms - Law BBS List	Leading Edge Computer	Spokane, WA
Leading Edge Auto Info Line	(509)326-3238	Libraries of Univ. of Minnesota Integrated Net Access7E1VT100	Bill Sorcinelli	Twin Cities, MN
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BOARDWATCH MAGAZINE

NATIONAL LIST OF ELECTRONIC BULLETIN BOARD SYSTEMS AND ON-LINE INFORMATION SERVICES - OCTOBER 1991

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MacInternational	(803)798-3755	Largest MAC BBS on East Coast	Ralph Yount	Columbia, SC
Magpie BBS	(212)420-0527	Support/Demo System for Magpie BBS/Conferencing Software	Steve Manes	New York, NY
Max-Micro Ticker/Screen	(212)809-1160	2000 Closing Stock Quotes/Market Research/Order Entry	Max Uie & Company	New York, NY
MaxHost Support BBS	(209)836-2402	MaxHost BBS - small, very easy to run BBS	Don Mankin	San Ramon, CA
Maxtor Technical Support BBS	(303)878-2020	Installation/Troubleshooting/Support for Maxtor Hard Disks	Maxtor Corp./Chris Bowers	Longmont, CO
McAfee Associates BBS	(408)988-4004	Computer Virus Information - VIRUSCAN and CLEANUP Programs	John McAfee/CVIA	Santa Clara, CA
MEIRO Online Entertainment	(212)831-9280	32 line DLX with City Guide/Ski Database - Matchmaker - Chat	Bruce Kamm/Metro Online Services	New York City, NY
Micro Foundry, The	(415)598-0398	2.2 GB Downloads - Your Online Software Source - Boardwatch	Thomas Nelson/Clockwork Software	San Jose, CA
Micro Message Service	(919)779-6674	USA Today/Boxoffice Magazine - Large Download Area	Mike Stroud	Raleigh, NC
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Microlink B	(303)972-9600	Over 2.5 GB of IBM Software - Multiline - USA Today News	Girard Westerberg	Litleton, CO
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Microsystems Software Inc.	(508)875-8009	HandWare Software for Handicapped - CodeRunner C Utilities	MSI - Reed Lewis	Framingham, MA
Minnesota Spacenet	(612)920-5568	Minnesota Space Frontier Society - NASA News	Ben Husset	Minneapolis, MN
NBEMR Ham BBS	(814)835-2553	login:hbbs HAM Radio/AMSAT Unix System - Satellite/Facet	Gary Sanders	Westerville, OH
NARDAC BBS	(804)445-1627	Zenith Computer Support - List of Federal Micro User Groups	Navy Regional Data Automation Center	NAS Norfolk, VA
NASA Headquarters Info Tech	(202)453-9008	Shareware and Technical Info for NASA PC users.	National Aeronautical and Space Admin.	Washington, DC
NASA Spacelink	(205)895-0028	NASA Educational Affairs Div. - Flight Data/Space History	Marshall Space Flight Center	Huntsville, AL
Nashville Exchange	(615)383-0727	8 line TBBS - Games/TDBS Software Development	Ben Cunningham	Nashville, TN
National Agricultural Library	(301)344-8510	Agricultural Info/Research Resources	US Department of Agriculture	Beltsville, MD
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NIST ACTS	(303)494-4775	Automated Computer Telephone Service - Sync PC to NBS Time	Nat. Institute for Standards/Technology	Boulder, CO
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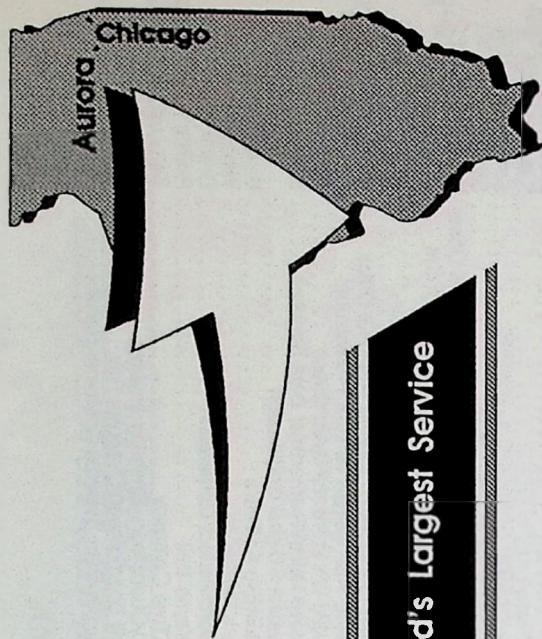
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